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Nick Hutton 0412051358 [M] nhutton@tpg.com.au

CCOCA LIfe Members
The committee awards life membership to Club members in recognition of their contribution to, and support of, the Club. Life memberships have been awarded to: Arthur and Nance Clarke 1984
ack Weaver
1991
Ted Cross 2012
Rob Little 2012
Sue Bryant 2017
Brian and Esther Wade 2017
Leigh Miles
2022
2023

## CCOCA Meetings

Club meetings are held on the fourth Wednesday of every month [except December] at 19:30. The venue is the Hawthorn Bowling Club, I Wood St., Hawthorn [cnr Denham St.]

## ccch Meeting

Club general meetings are held on the third Thursday of each month [except January and December] They alternate monthly between get-togethers in our Club rooms from 19:30 at 8/4। Norcal Rd.,
Nunawading and social gatherings in various venues, such as pubs and restaurants. Details of each month's event are published here and on the Club's website and advised to members by email.
CCCV COMMITTEE MEETINGS
Meetings are held monthly in
locations decided each month

## CCOCA Spares, TOO/s \& Shop

Contact Max Lewis. Phone: 0458993 771 [if you do phone, please do so at a reasonable hour] or spareparts@ citroenclassic.org.au
CLUB SHOP
Club Shop is presently not operating For further information please contact the Club's President.

## Postal Addresses

CITROËN CLASSIC OWNERS CLUB of AUSTRALIA Inc.
The address of the Club and this magazine is:
PO Box 52, Balwyn, Victoria, 3103. The Club's website is:
www.citroenclassic.org.au
CITROËN CAR CLUB OF VICTORIA Inc.
The address of the Club is:
PO Box 122, Nunawading, Victoria 3131.

The Club's website is:
www.citcarclubvic.org.au Citroën Classic Owners' Club of Australia Inc and Citroën Car Club of Victoria Inc are members of the Association of Motoring Clubs.
The views expressed in this publication are not necessarily those of CCOCA, CCCV or their Committees. Neither CCOCA, CCCV nor their Committees can accept any responsibility for any mechanical advice printed in, or adopted from this publication.
The Clubs cannot accept any responsibility for, or involvement in, any business relationship that may occur between an advertiser and a member of either Club.

## Other Clubs

NSW www.citroencarclub.org.au QLD www.citroenclubqld.org SA www.clubcitroensa.com
WA www.citroenwa.org.a

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## Contributors

Contributors to this edition of 'Front Drive' include Chris Bailey, Alan Brown, Tony Burrell, Andrew Cox, John Freeman, Paul Johnson and Bauke Meijer.

## Deadline

The deadline for the next edition of 'Front Drive' is Friday, 7 June. There will not be a July edition of 'démarreur'. The deadline for August's 'Front Drive' is Friday, 26 July.

$7 \sqrt{\text { rac }}$raction Arrière? Yes, before Traction Avant, there was traction arrière and both our Clubs are blessed with members who are keen to uphold and keep alive these cars from Citroën's earliest years.
Without these models the Light I5, the DS and the C5 $\times$ would not exist.
Victorian member, Paul Johnson, shares the story, and a load of pictures, of his restoration of 'Lemondrop' a yellow [now there's a surprise] 5CV Citroën.
While Paul knew the names of the car's original restorers, he did not have their contact details. As a result of writing for us, he went in search, and made contact with, those previous owners.
Continuing the 'vintage' theme, I can finally bring you the previously promised article about Citroën's toy cars from the pre-war years. These models were large: 38 cm or so and,
contrary to my understanding were not limited to rear drive models. Their production continued right up to the Michelin takeover... so Traction toys were made as well.
We also have the third, and final part, of Andrew Cox's extensive feature on André Citroën's gear-making enterprise.
Chris Bailey, from the UK, is hard at work on his Traction and shares with us some of his difficulties fitting a Jack Weaver plate to his car. It is great to know that a CCOCA creation continues to help keep Tractions on the road, globally. I hope, in a future edition, to tell Rob Little's story of the development of this great device and to explain why Chris may have had the difficulties he did.
One of the downsides of 'Front Drive' being available as a hard-copy magazine is that there are restrictions on the number of pages we can produce. More pages means higher printing costs and potentially higher postage costs. The result is that sometimes articles need to be held over until the sub-
sequent edition of [soft copy only] 'démarreur'. Such is the case this time, because John Freeman's Traction 90 feature appears in this edition. John's wry view of the world shines through in his writing.

OzTraction is just around the corner, and we are sorry for the late notice. Details are in this edition and all members of both Clubs [whether Traction owners, or not] are all encouraged to attend.
In addition to local events, we have breaking news on CitIn 2025, which is being hosted by the Queensland Club, and of the 60th Anniversary Dinner being hosted by the New South Wales Club. CCCNSW have let it be known that members of both CCOCA and CCCV who wish to join this celebration will be made very welcome.
In news from France, we also have information about the CX's 50th Anniversary event being held in September.
Something for everyone? | hope so!
Enjoy,
Leigh F Miles ~ Editor

## fitroening

Club Permit applications to VicRoads mustbeaccompanied by a RWC [pre- 1949 cars can be inspected by a Club Safety Officer], ownership validation and VicRoads forms endorsed by the Club including financial

## validation.

New Permit holders must supply the Club with approved photos, club permit number and expiry date.
The owner of a vehicle registered under the CPS will
receive a Club Permit Renewal from VicRoads. The owner must complete the form and provide it to their Club's CPS Secretary [see page 2 for contact details] for sign off
 COCA has always been about saving old Citroëns, and hopefully restoring them to their former glory. The focus began when CCOCA decided to build a club for Tractons and Vintage Citroëns, but our founders wisely decided to broaden their vision, and determined that all model Citroëns were, or would become, Classics. Jumping to today, CCOCA has an extremely wide group of models in our club, and no model is favoured over the other.
This month Leigh has decided to feature Rear Wheel Drive models. This is a very timely decision, because there has been a renaissance in interest of Yintage Citroëns. If you feel like joining this group there are a couple of Vintage Citroëns currently for sale.
Our new member Paul Johnson is one of these very committed owners, so please read his story. 2025 is also the 100-

year centenary of the first car to circumnavigate Australia, and yes, Citroën was the marque to achieve this great feat.
Our recent joint activities with CCCV are proving to be a wise decision, and I hope this concept will continue indefinitely. We need to plan a bit further ahead than we have done recently, but I am confident both sides of the partnership are working towards this goal. One area of concern for me is when people sign up to attend an event and then do not show up. This occasionally prevents another person from attending, and also shows a lack of respect for the organizers. Please consider this when deciding to attend an event in the future.
Today we held a very enjoyable Show and Shine at Rippon Lea, which is a National Trust property in Melbourne ~ the day worked beautifully. Michael Faulkes, the President of CCCV coordinated this event, and helpers from both clubs worked seamlessly to create an excellent experience. It was a perfect, auturn day, with $20^{\circ}$ and sunshine, and we all had a great time catching up with friends. I encourage you to come along next year if we return to this location.
Finally, OzTraction, is in Shepparton, Vic. this year, and is still open for bookings if you feel like a short holiday. Please see our website or page II.
Ted Cross ~ President, CCOCA

p
In always amazed at the reach this club has. Recently I was contacted by a youth services educator in the USA about a project her students have been working on to do with the history of the automobile industry. They came across the CCCV website links section and found it very useful for their research. One student in particular was very enthusiastic and has produced a quite extensive history of the US auto industry and was quite keen to share it with the club. For those that wish to read it, you can find it online here https://www.con-voycarshipping.com/a-guide-to-the-automotive-industry/

AUTOMOTIVE HISTORY It's nice to see younger people with an interest in the older, or more obscure, makes. One of the best things about the annual Show and Shine is engaging with a wide audience that may not have much exposure to our beloved marque and hopefully bringing them into the club. That makes us sound like a bit of a cult but then you do have to a bit 'out there' to own a Citroën.
On the topic of membership, it's always nice to receive the monthly membership reports which show that the club is continuing to grow and we are now at some 260 members. The good news is were going
to be here for a while yet and definitely to see the club's 60th anniversary next year. It has been truly great to see membess coming out of the woodwork for the bi-monthly pub gatherings, which seem to only be growing in popularity. The next one will be at the Cordialfloc Hotel in July. I look forward to seeing who comes along.
For the May meeting, John Albanis has organised an excursion to All Head Services in Keysborough. It should be a great night with a tour of the workshop. Full details will be on the club website and further down the magazine. RSVP is essential because there is a limit on the number we can take through the workshop.
One final note before I let you all get on with reading this month's issue. Today I received the very sad news that one of our founding members, Heath-
er Greeves, has passed away.
Continued on page 8


## 

## Continued from page 7

She was at the first ever CCCV meeting in the Parkville Post Office in 1965 and she has been a member ever since. Heather was possibly our longest continuous serving member ever and even asked her daughter to pay her subs not long before she passed. In her time, Heather has been secretary, editor, parts supplier and more recently the club historian. She will be remembered as a larger than life character and fierce friend who always had a good story to tell usually with a mischievous grin. Michael Faulks

## over Image

The cover depicts a 1930 Citroën AC4 which was listed for auction by Autive Auctions in Prague on Apri
 27. The estimate was €|0 to 15,000

## CccVNoticeboapd

LHM OIL FOR MEMBERS
The price of LHM oil is now $\$ 18.00$ per litre as at $10 / 11 / 21$.
Cheque, money order or EFT [payable to CCCV Inc.] Note: Purchasers must receive a receipt.
Check for your nearest rep:
Mentone
Stephen Maloney 0438155797
Western Suburbs
Ferdi Saliba 0409384977
Glen Iris
Colin Bates 98222864
Ringwood
Wolfgang Siem

Somerville
John Parsons
0407045388
Ashburton
Robert Belcourt 0439798079 Shepparton
Rob Little
$04|958| 622$
Warrnambool
RogerWikinson 0427 II5 224
Hurstbridge
Adelino de Silva 0419886480 Also available from club shop at club meetings.
LDS OIL
LDS oil is available at club rooms on club nights only at $\$ 25.00$ per litre.

Please note: To book or RSVP for a CCOCA organised event you must register on line at the club's website. Do not contact the organiser to register your attendance.
The Clubs strongly recommend wearing a mask in areas where you cannot maintain social distancing.

## CCOCA/CCCV Events Look Like This

Other Citroën Events Look Like This

## Non-Citroen revents Look Like This

## - May

Railway Run

| WHEN: | Sunday, 5 May |
| :--- | ---: |
| TIME: | $08: 00$ |
| FROM: | Eltham, actual location |

FROM: Eltham, actual location
 Monday, 22 April MORE INFO: Peter Lynch, atkipete@yahoo.com.au

## CoCA May Month Meeting $~ M a d e ~ \& ~$

Modified Tools
WHEN: Wednesday, 22 May TIME: From 19:30 WHERE: Hawthorn Bowling Club, I Wood St., Hawthorn
[cnr Denham St.]
COST: Free
REGISTRATION: Essential, for
catering, by 20 May BRING: The tools that make the MORE INFO: Lee Dennes, I.dennes@bigpond.net.au



DO NOT CALL LEE TO REGISTER! You must register/book via the CCOCA website https://citroenclassic.org.au

CCOCA MAY BOOKING It's not hoarding if it's tools! Have you modified or specially made a tool for a specific job? Bring it along and share its use with other members.

## CCCV May Monthly

## Meeting

WHEN: Thursday, 16 May TIME: From 17:30 or 19:00 [see below] WHERE: All Head Services, 20 Fiveways Bvd., Keysborough. 3173 COST: Dinner to your account REGISTRATION: Essential. Text John Albanis to register MORE INFO: John Albanis, 0421 I8I 86|
This month we decamp from the Clubrooms for a trip to All Head Services. The owner has arranged for a tour of their workshop and demonstration of the work they do to refurbish


OzTraction 2024 WHEN:

Friday, 3I May to Monday, 3 June Shepparton and district COST: \$200per person REGISTRATION: Essential, by Thursday, 23 May MORE INFO: Ted Cross, 0400592208 president@citroenclassic.com.au Helen Cross 0419356963
DO NOT CALL TED OR HELEN TO REGISTER! You must register/book via the CCOCA website
https://citroenclassic.org.au
OZTRACTION BOOKING Despite the name, OzTraction [CCOCA's own annual event] is not just for Tractions. It is not even just for Citroëns. Cars of all makes and models are very welcome, indeed are encouraged, to attend. Naturally, members of CCCV can be sure of a warm welcome, too.
Your $\$ 200$ covers the costs of welcoming finger food on Friday evening, two light lunches, three dinners and the farewell breakfast on Monday morning. In addition, there will be a Show \& Shine, an Observation Run, and scenic drives in the surrounding countryside, including the Silo Arts sites.
All other costs, including refreshments and accommodation, are to the attendee's account.

## A-tractions

The preferred accommodation is The Peppermill Inn, 7900 Goulburn Valley Hway, Kialla. [03] 5823 I800.
https://peppermillinn.com.au/ accommodation/

PEPPERMILL INN
Mention the 'Citroën Group' when you ring to book. Further details of times, venues and directions will be emailed to participants approximately 7 days before the weekend. Finally, remember this is NOT the June King's Birthday Long Weekend.

## - June

Battle of Waterloo WHEN: Sunday, I6 June TIME:
FROM:
Mornington, exact
location TBC



TO: Balnarring Bowling Club, 12 Strathmore Rd., Balnarring COST: See details below REGISTRATION: Essential by Friday, 7 June BRING: BYO food for a picnic/ BBQ lunch MORE INFO: Pete Lynch atkipete@yahoo.com.au We have invited the BMC Ley land Car Club to join us for a real Waterloo Challenge!
The day will begin with a scenic drive to our morning tea spot at Penny Lane, 197 Nepean H'way., Dromana. We then continue to our headquarters for the day: the Balnarring Bowling Club
A friendly, yet competitive game of indoor bowls will set the tone for the occasion.
The Club has full kitchen facilities, BBQ and microwave; cutlery and crockery is available for our use. They will provide volunteers to show us the ropes to play the game, help in the kitchen, BBQ and anything else we may require on the day. Staff will open and run the bar for us. Cost for morning tea and drinks at the bar will be to your account. If you wish to participate in the optional bowls competition it will cost \$10pp. DO NOT CALL PETE TO REGISTER! You must register/book

via the CCOCA website https:// citroenclassic.org.au

## WATERLOO BOOKING FORM

## CCCV June Monthly

## 

WHEN:
Thursday, 20 June
TIME:
19:30
WHERE: CCCV Club Rooms,
8/4I Norcal Rd., Nunawading COST:

Free
REGISTRATION: Not required
This month the club is hosting a movie night at the clubrooms. Don Scutt has raided his movie collection for a french classic Popcorn and pizza supplied.
CCOCA June Monthly
Meeting: Film Night
WHEN: Wednesday, 26 June
TIME: From 19:30
WHERE: Hawthorn Bowling
Club, I Wood St., Hawthorn
[cnr Denham St.]
COST:
Free
REGISTRATION: Essential, for catering, by 24 June
MORE INFO: Lee Dennes, I.dennes@bigpond.net.au DO NOT CALL LEE TO REGISTER! You must register/book via the CCOCA website
https://citroenclassic org.au

CCOCA JUNE
BOOKING
For many film fans Blake Edwards' movie 'The Party', starring Peter Sellers is a comedic highlight. Come along,

## A-Tractions

bring the pop corn, sit back and watch this great movie with friends. It may not be 'gold class', but you will have a golden night out.
Supper supplied, of course.

## - July

Bastille Day Lunch
WHEN: Sunday, I4 July TIME: $\quad$ 12:00 for 12:30 WHERE: Churchill-Waverley Golf and Bowls Club,
82 Bergins Rd., Rowville. 3178 COST: $\$ 40.00 \mathrm{pp}$ refreshments to your account REGISTRATION: Essential by Friday, 5 July BRING: Your wallet MORE INFO: Marg Towt, marg.towt@bigpond.com DO NOT CALL MARG TO REGISTER! You must register/ book via the CCOCA website https://citroenclassic.org.au BASTILLE BOOKING

Join your fellow Citroënists from CCOCA and CCCV for a two course lunch at this inviting venue. The price, of $\$ 40$ per person, has been subsidised by the Club, but refreshments are to your account. So, bring your wallet! As always, be sure to drink responsibly.
Please wear your name tag Should you need to cancel your booking, any refund will be at the discretion of the organisers. Late bookings will not be accepted.

## CCCV July Dinner Meeting

WHEN: Thursday, I8 July TIME: From 19:00
WHERE: The Bridge Hotel, I-4 Nepean H'way., Aspendale. 3195 COST: Food and refreshments to your account REGISTRATION: Essential, by Monday, I5 May

Come along, enjoy a luncheon, along with the festivities to celebrate
BASTILLE DAY

Churchill - Waverley Golf and Bowls Club
Rowville Site
82 Bergins Road Rowville Victoria 3178

BRING: Hunger and a thirst MORE INFO: Ian Downie 0452 4II 104
Once again in place of a club night in the Nunawading club rooms, we are heading for a pub outing and meal.
These sojourns are to encourage members who otherwise might not attend Club meetings. We rotate the area that they are held in so as to make them convenient to members in far flung areas. This month we head Bayside.
COCA July Monthly
Meeting: Chat Night
WHEN: Wednesday, 24 July TIME: From 19:30
WHERE: Hawthorn Bowling
Club, I Wood St., Hawthorn
[cnr Denham St.]

COST: Free ON: Essential for
catering by 22 July MORE INFO: Lee Dennes,
I.dennes@bigpond.net.au DO NOT CALL LEE TO REGISTER! You must register/book via the CCOCA website: https://citroenclassic.org.au

CCOCA JULY BOOKING Come along and enjoy the warmth of the company of other Citroënists at the Club's July meeting. Max will be there with a large selection of books from the Club's library, all of them available to borrow. Remember, if there is a particular book you would like to borrow get in touch with Max before the meeting and he will be sure to bring it along for you.

## SPECIALISTS IN SUPPLY OF UNIQUE AND HARD TO FIND TYRES

STUCKEY
TYRE
SERVICE
RAGING

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YEARS
Girroen Car Club of NSW, inc.

LE 7 SEPTEMBRE 2024
A 12:00 PM

NORTH RYDE RSL
27-41 MAGDALA ROAD NORTH RYDE

3 COURSE MEAL \$30 FOR CCCNSW MEMBERS | 770 FOR NON-MEMBERS

## PAYMENT

CITROEN CAR CLUB OF NSW INC BSB 062 562, ACC 10156846

> PAYMENT REFERENCE
> 'SIXTY' FOLLOWED BY YOUR NAME

ENQUIRIES
PRESIDENT@CITROENGARCLUB.ORG.AU

Looking Forward
The next 'Front Drive' will be published on June 24 and celebrates the 65th Anniversary of the launch of the

## CCOCA Annual General Meeting

| 7 he Ccoca | COMMMITTEE NOMINEES, NOMINATORS AND SECONDERS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\int$ nual General | Position | Nominee | Nominator | Seconder |
| Meeting was held on | President | Ted Cross | Lee Dennes | Peter Sandow |
| Wednesday, 27 March | Secretary | Susan Bryant | Helen Cross | Mark Robinson |
| at the Club's new | Treasurer | lan Macdermott | Helen Cross | Susan Bryant |
| meeting point of the | Editor | Leigh Miles | David Rogers | Marg Towt |
| Hawthorn Bowling | Spare Parts Officer | Max Lewis | Barb Towt | Michael Molesworth |
| Club's rooms in Haw- | Activities Coordinator | Lee Dennes | Marg Towt | Helen Schembri |
| thorn. | Website Manager | Bruce Stringer | Susan Bryant | Marg Towt |
| We had 26 member | Committee Member I | Marg Towt | Helen Cross | Ted Cross |
| the room and th | Committee Member 2 | Simon Marshall | Ted Cross | Marg Towt |
| Club had also received | Committee Member 3 | Mark Robinson | Helen Cross | Mark Forster | proxies from a further 38 members. This total of 64 members is $15 \%$ of our mem bership of 427. The required quorum is $10 \%$ of the membership, so the meeting was able to proceed on the night.

The reports of the members of the Committee, which had been published in the previous magazine, were tabled and accepted by the meeting.
At this point, the Committee stood down and, Past President, Tim Cotterill, took the chair.
As you will be aware, our long-serving General Committee representative, Russell Wade, stood down from the Committee after a number of years of service in various roles.
There had been no valid nominations received before the meeting, but the Committee nominations/seconds that were received, and accepted, at the meeting are shown in the table. As there was only a single nomination for all the positions,
the nominees were duly appointed.
While at first glance it might appear that there have been no changes to the make up of the Committee, in fact we have two new members on Committee. They are Simon Marshall and Mark Robinson, each of whom has written a short profile for the magazine.
Simon Marshall
$\square$ ello fellow members of
CCOCA. I was recently asked if I would be interested in entertaining the idea of becoming a committee member of our wonderful club. At the recent AGM in Hawthorn, the interest became reality and I am now a new committee member.
A little about myself: Citroëns were introduced to my life in the mid '80s by my stepfather Roger Brundle. Roger was a founding member of CCOCA, so Citroëns were always
around as I was growing up. I didn't pay much attention to them because big American V8s were my thing at the time.
In 2016 Roger passed away after a brief battle with cancer. It was left to me to sort out his cars and all the parts associated with them. Trying to work out what belonged to what and how things went together I developed a newfound appreciation for the complexities, and also the subtleties, of these fantastic cars. I'm not sure at what point it got me, but I was definitely bitten by the Citroën bug.
I now own four Citroëns in various states of repair, and disrepair, and thoroughly enjoy learning more and more about these cars every day. I'm fascinated by how complex they appear to be, yet if you follow the bouncing ball and don't rush anything, you get to the end of the task with an even greater appreciation of the engineering in these cars, albeit with a few

more swear words in the vocabulary.
Looking forward to helping wherever I can and however I can as a new committee member of CCOCA.
Simon Marshall
Mark Robinson
/. $\begin{aligned} & \text { y association with } \\ & \text { Citroëns started }\end{aligned}$ when I was 19 and I purchased a Light 15 followed by an ID 19 and then a 1969 DS Safari that I owned for over $20 y e a r s$ and wish I still had.
I then had normal cars until my addiction drew me back and I brought a DS 23; now recently sold.
With my wife, Rita's, support and encouragement, I am currently working on a 1955 Traction Avant Big 6H that you will see on the road this year.
I am still working, not yet retired. But I hope I can serve the Club as much as I can. Mark Robinson


## Cit-ln 2025

WHEN: Friday 2 to Monday, 5 May, 2025 TIME: From 15:00 on May 2 WHERE: Maryborough, Qld COST: TBC REGISTRATION: Essential. Registrations open in July, 2024. MORE INFO: cit-in25. citroenclubqld.org.au CIT-IN 2025 WEBSITE
CITROËN CAR CLUB OF QUEENSLAND \& FRASER
COAST REGIONAL COUNCIL WELCOMES YOU TO THE HOME OF MARY POPPINS \& GATEWAY TO K'GARI [FRASER ISLAND] 2025 marks the centenary of the first circumnavigation of Australia by
 car. Not just any car, but
a Citroën 5 CV . It is also the 70th anniversary of the legendary DS, launched in Paris 1955. Maryborough three hours north of Brisbane and is rich in history, boasting 1800s architecture, a proud industrial heritage producing naval ships and equipment for the railways and sugar mills. The city has abundant nature, with the Mary River running from the hinterland to the sea. Hervey Bay, on the coast,


Maryborough Queensland
cirvodn cur club of fuesentanc
serves as the gateway to both K'gari and the Great Barrier Reef.
The home of Mary Poppins? Yes, the author of 'Mary Poppins' was born in Maryborough in 1899.
Programme of Events
A Venue
Brolga Theatre \& Convention Centre, 5 Walker Street, Maryborough.
Events will be based here unless stated otherwise.
A Friday 2 May 2025

- Arrival 3pm to 6pm
- 6pm Welcome BBQ

A Saturday 3 May 2025

- Show and Shine: Lunch provided
- Chevron Games: A series of fun and precision activities to challenge the skill of drivers and their cars.
- Evening Dinner and Dancing at Maryborough Services Club

A Sunday 4 May 2025

- Observation Run: A selection of curated drives, activities and walks through the hinterland, to the Coast and in Maryborough's historic Wharf Street precinct. Discover the region's Nature,
- Formal

Theme

to life the glamour of Paris 1955. The year of the launch of the Goddess.
AMonday 5 May 2025

- Breakfast and Farewells


## Stay Informed

As planning for Cit-in 2025 progresses more information about the planning and activities will become available

with updates as the event gets closer. If you choose to subscribe, we will not use your contact details for any other purpose and will not share details with any other person or group. Y ○ u
can opt out at any time.
Accommodation Find the list of Ma -

ryborough hotels, caravanning and camping options on the CCCQ website or at
www.visitfrasercoast.com
FRASERCOAST WEBSITE

## Vubile CX: France

WHEN: Friday, 13 to Sunday I5 September 2024
WHERE:

## COST:

BOOKINGS:
BRING:
MORE INFO:
information@jubilecitroencx.
net
While the eyes of many CCO CA members will have been focused on the French celebrations for the 90th anniversary of the Traction, others will be equally aware that this year marks the 50th anniversary of the CX.
You can register here:
https://jubilecitroencx.net/bou-tique/fr/accueil/2-inscription-ju-bile-cx.html

JUBILÉ CX REGISTRATION Cost of the Event
A Registration for the full three day event is $€ \mid 00$. This covers a car [CX only], the driver and a passenger. Additional passengers are €20each.


A Single day visitor entry: €5
人 Saturday Gala Dinner: €60pp. Limited attendee numbers.
A Friday evening cocktail reception: €30pp. Limited numbers. What to Expect
The Jubilé CX will take place at the Domaine de Montigny-le-Gannelon, in Eure-et-Loire just a stone's throw from the Perche region.
Registered Citroën CX cars [and only Citroën CX cars] will be allowed to park in the designated area inside the Château grounds for the duration of the weekend during the
event's opening hours. However, throughout the event, you are welcome [and encouraged] to come and go as you please. It will be possible at any time to get out your CX to discover the region or take some great shots on the banks of the Loire.
Depending on what they want to do, guests will be able to take part in the various activities on offer on the site or elsewhere, if they so wish, giving them the chance to enjoy an 'à la carte' stay. To do this, the CX registered must be able to enter and leave the Domaine by its own means.
Conviviality, sharing and exchange are the key words for this event!

## The Programme

A Continuous entertainment:

- Citroën CX living exhibition
- Sightseeing tours
- Sale of parts
- Photo shoots
- Continuous on-site catering

A Friday 13 September:

- Ride at the La Ferté-


Vidame Test Centre ~ SOLD OUT

- Welcome Ceremony Club evening [booking required]
A Saturday 14 September:
- Visit to La Canopée aircraft collection ~ Chateaudun [reservation required]
- Concours d'élégance Jubilee Gala Dinner [reservation required
- Dance evening

Sunday I5 September:

- Jubilee Tombola Draw
- Closing picnic
- End of the event at 5pm


## Jubilé CX <br> 1974-2024

$\underset{\text { FR- } 28220 \text { CLOVES-LES-TROIS-RIVIERES }}{13 \text { - }}$



SHARE THE PASSION

"NO ONE KNOWS YOUR PASSION LIKE SHANNONS."

## 馬

Shannons Home and Comprehensive Car and Bike insurance is for motoring enthusiasts just like you, with features like:
$■$ Choice of repairer $\square$ Agreed value ■ Multi-Vehicle \& Multi-Policy discounts $\square$ Limited Use \& Club Plate cover ■ Laid up cover ■ One excess free windscreen claim per year $\square$ Total loss salvage options $\square$ Home \& Contents Insurance including $\$ 10,000$ enthusiast items cover for your collectables \& tools $\quad$ Towing \& storage costs as a result of loss or damage $\quad$ Pay by the month premiums at no extra cost Call Shannons on 134646 for a quote on your special car, daily drive, bike or your home, and speak with a genuine enthusiast.
Shannons Pty Limited ABN 91099692636 is an authorised representative of AAI Limited ABN 480052978077 , the product issuer
Some benefits only apply to comprehensive vehicle cover. Shannons has not taken account of your objectives, tinancial situation Some benefits only apply to compretensive vehicle cover. Shannons has not taken account of your objectives, tinancial situation
or needs.
Read the Product Disclosure Statement beforer buying this insurance, available tat shannons. com.au. The Target Market of insurance. If you do not use your veticle in accordance with the vehicle usaee shown on your policy certificate you may not be covered in the event of a claim. Discounts do not apply to the optional Shannons Roadside Assist or CTP.
ne'wos'uo!ł!u6icz.'mmm

 әәц!-әэนеนәłu!ew uо!џe॥!ısu! әdu!s Lower fuel consumption
Variable dwell-angle



 sıeo э!uołs!





## Engrenages Citroên III

Manufacturing Abroad $\# \begin{aligned} & \text { n } \\ & \mathrm{a}\end{aligned}$ 191I, Citroën entered into a licence agreement allowing the Škoda factory in Plzeñ [Pilsen] to manufacture his gears for the Austro-Hungarian and German markets
Škoda was a dominant player in the region, with a huge manufacturing capacity, and a workforce of some 7,000 people. In all likelihood, they would have met the demand for herringbone gears with or without help from Citroën, so a deal that provided some return from those markets without any capital investment would have been impossible to decline.
In any case, patents only gave protection from copying for I5years, so any rights obtained from Poland were due to expire in 1913.
The Plzeň factory went on to produce gears every bit as impressive as those made in Paris In a similar move in 1912, a manufacturing facility was set up in the Lefortovo district of Moscow, just east of the city centre.
An independent organisation called the Citroën Gear Joint Stock Company was established in Russia to finance this side of the operation. A major customer was the Kolomna Locomotive Plant, some 115 km to the south east, though smaller


100 A share certificate in Citroën's Russian
enterprise 'The Citroën Gear Joint Stock
Company' and an early Russian press
advertisement for the company's gears.

Акціонерное Общество

## IPGTROH WHTDRAH\%

Механическій Заводъ.

## ШЕСТЕРНИ

съ шевронными фрезерованными зубьями цилиндрическія и коническія всякихъ размьровъ.

## Заводъ и Комтора;

МОСКВА, Лефортово, Юрьевская улица. Телефонъ 3-12-55.


This advertisement, from 1912, no longer mentions the German sales office in $\mathrm{Co}_{0}$ logne. I guess it must have been rolled up into the agreement with Skoda.
gears were also supplied to the nascent automobile industry.
This Russian company would be nationalised in 1917, after the October Revolution led by the Lenin.
The advert from 1912 no longer mentions the German sales office in Cologne. I guess it must have been rolled up into the agreement with Škoda. The Titanic Connection
There was expansion in

## A Mechanical Drive which is $\mathbf{9 8} \%$ Efficient.

The most perfect drive for the mechanical transmission of power is Citroen Gears. These have an efficiency of $98 \%$ and upwards, which speaking, eliminated. This is because the teeth
(lipoen ©ars
are of the theoretically correct shape, and are in continuous engagement. The two members
 esh sicntly and smoothly, and with ut shock or vibration, even when unning at very high speeds.

$$
\begin{aligned}
& \text { A full description of these gears is } \\
& \text { given in the Citroen Gear Catalogue. } \\
& \text { This fine example of Enginerening } \\
& \text { literature will be sent on request. } \\
& \text { We will also be glad to quote to } \\
& \text { your requirements. }
\end{aligned}
$$

THE CITROËN GEAR CO., LTD., 22, Buckiagham Gatte, Lodoon, S.W. 1.
the UK too, as the sales office moved to more spacious premises at 28 Buckingham Gate, SWI, a location it would occupy until 1924 when it was incorporated into the Citroën building at Brook Green, Hammersmith. By 1914, the UK operation would comprise the London $H Q$, nine regional offices up and down the country and agencies in South Africa, Australia and Canada
British customers included Sandycroft Ltd, a specialist in winding gear and related equip ment for mines, Ernest Newell \& Co, which made tube mills for

grinding minerals and cement and Hunter \& English, a longestablished company, now making pumps, cranes and dredging equipment.
One of the best-known sales achieved by the London office was that of three gears sets for rudders of the Olympic Class liners being built for the White Star Line by Harland and Woolf; the Olympic, the Britannic and the Titanic.
Construction of the Olympic started in December 1908 and

The 1912 show at Olympia was attended by André Citroën
the Titanic three months later The keel of the Britannic was laid in 191I, but the ship wasn't completed until 1914, following design changes in the light of the Titanic disaster.
The upper image on the facing page depicts the final set of rudder gears, on the shop floor of the Belfast shipyard, beside the tandem three-cylinder steam engines that turned the rudder:
The lower picture, originally published in 'The Engineer, gives a better sense of scale André Citroën was hugely


## Engrenages Citroën III

supportive of the UK operation, travelling to London to be there in person whenever the occasion demanded. It's reported that he spoke English quite fluently. We know he attended the 1912 Machinery Exhibition in Olympia, where many other French companies also exhibited their wares.
The Citroën Gear Company
In 191, a new company was created, the Société des Engrenages Citroën.
From the report of the new company's formation, we can see the difference in scale between the former company, established at the end of 1905 with a capital of F300,000, and the new one, created just over six years later, with a capital 10 times greater.
The Conseil d'Administration is what we would term the Board of Directors, and there


## ${ }^{\text {Hes }}$ ENGRENAGES CITROËN

## A CHEVRONS TAILLES



Socićté des engrenages Citroen. - Au capital de 3 millions de francs, divisé en 30.000 actions de 100 francs, dont 15.000 d'ap port, attribués à la Société André Citroen et $\mathrm{C}^{1 \mathrm{e}}$ avec les 500 parts de fondateur créées et une somme de 1.874.933 fr. 76. Siège social à Paris, 31, quai de Grenelle. Conseil d'administration : MM. A. Boas R. Boas, A. Citroen, J. Citroen, N. Raffalovitch G. Schwob et K. de Skoda.

This is the announcement as reported on February 20 in 'l'Echo des Mines et de la Metallurgie'.
are some interesting names on the list.
First in the list, A Boas, or to give his full name, Eliézer André Boas, was a school friend from the Lycée Condorcet. It's widely reported that André Boas had been involved with Citroën's gear company from the start, in 1901.


Turning to the next entry, I thought R Boas must be his brother René, but it turns out another brother, Jacob Robert Boas, was always known as Robert, and it is he who became a director of SA Engrenages Citroën.
After André Citroën, we have an entry for J Citroën; this is Jo-seph-Roelof Citroën, one of André's many cousins
The Boas brothers' mother was Clotilde Sara Schwob, who

George Schwob: a man whose facial hair could be seen from behind. Those of you who with long memories will remember the days when your editor's moustache was even longer! Albeit not visible from behind.

## TYREPLUS EASTLAND cnr BOND \& NEW STREET RINGWOOD 3134 PHONE: 98798487 PROPRIETOR: STEFFAN ROSIER Please check for current stock and prices.



## Engrenages Citroën III

numbers among her siblings a certain Georges-Julien Schwob d'Héricourt [1864-1942], the G Schwob named in the list.

George Schwob deserves a mention in any treatise on the subject of Citroën, if for no other reason than to include this photograph of his magnificent moustache. As someone who struggles to grow a goatee, have a deep respect for any fellow whose facial hair can be seen from behind
Putting aside this impressive growth, Schwob's role was critical, because he was a major source of funds for the new company, both at a persona level and through his friends and contacts.
Born into a wealthy family, he was an industrialist in his own right, with interests in mining, tramways, banking and other areas too. In 1911, he was made a Commandeur de la Légion d'Honneur, the third of five levels of distinction in France's highest order of merit. André Citroën achieved the same rank l7years later, followed by Grand-Officier de la Légion d'Honneur in 1931.
Schwob's first involvement with André Citroën came through Mors, where he held a seat on the board.
Next on the list, is Nicolai/ Nicolas Raffalovich. He doesn't seem to have had a connec tion with Citroën before, which
makes me think his involvement as a director was linked to the joint venture in Russia, but l've yet to turn up concrete evidence to support this. In any case, he was certainly a colourful character.
Born in Odessa on January 31, 1883, he seems to have spent much of his life in Paris; when he wasn't away fighting, that is. When he got married, in the Russian church on rue Daru in 1905, he had to take leave from the Manchurian Front, where Russia was at war with Japan. His wedding garb was the uniform of the Dagestan Mountain Regiment. He was very well connected; his wedding was attended by Ambassadors, Princes, Barons and Counts, as well as commoners.
His bride, Marie Raffalovich, was also his cousin, which meant his uncle Arthur became his fa-ther-in-law. As if that wasn't complicated enough, Nicolai's brother Serge/Sergei Raffalovich married his wife's sister.
Arthur Raffalovich was commercial attaché to the Russian embassy in France. As well as Engrenages Citroën, Nicolai was on the board of several other companies, including the Banque Russo-Asiatitiqe de Paris and a gold mining company based in Belgium.
The last entry is listed as K de Skoda. Other records refer to Karl de Skoda, with a regis-
tered address in Vienna. In his native German, his name would be rendered as Karl von Škoda, or more fully, Karl Freiherr von Škoda, who just happened to be General Director of the Škoda Works in Plzeň.
The key point here, and the reason for going into detail, is that all of the directors had put in at least F375,000. Just as he did when he founded his Cit-

## Automobiles MORS 1914



## 43\& 45, rue des Pâquis, GENEVE Tềéphone 75-28

roën, Hinstin \& Cie, André Citroën succeeded in raising funds from his family and their circle of associates. He did not have to go to the banks or the stock exchange to raise capital. This was an approach he maintained for as long as he possibly could. When he became a car maker, he famously relied on his deal-
er network to provide working capital, while maintaining the longest lines of credit he possibly could from his suppliers. Competition
Perhaps mindful of the imminent loss of patent protection for the fundamentals of his gear cutting technology, the company started to lodge new patents in its own name. Between 1910 and 1915, at least eight different groups of patents were registered.

Some were

## This Mors advertisement from 'La Suisse Sportive' of May, 1914 depicts the car's final drive and references its Citroënsourced gears. The illustration below is taken from a Citroën brochure from

 September, 1914.
## Engrenages Citroën III

new applications for herringbone gears such as a compact reduction gear train, a new gearbox design. Others came from links the company had forged with the French navy hence, there was a new design for the rudder drive in submarines and battleships and improvements to the control of valves in torpedo tubes, registered in 191|.

## PIAT



Engrenages KOSMOS a chevrons tailles, droulementsilencieut: anaul rendement Les Fils de A.PIAT\& C $\mathbf{C}^{\prime \prime} 87$, Rue S' Maur, PARIS.

## DOUBLE HELICAL MACHINE CUT GEAR WHEELS (WUST'S PATENT)



MADE IN ALL SIZES up to 14 ft . diam., 33 in . face for silent and efficient transmission of fight and heavy powers up to 5000 H.P.

HIGH RATIO SINGLE \& DOUBLE REDUCTION GEARS IN OILBATH A SPECIALTY

SUPPLIED TO THE ADMIRALTY; INDIA OFFICE ; WAR OFFICE, Etc.

Ask for full particulars
THE...
POWER PLANT CO. tro.
WEST DRAYTON, MDX.
MESTAYER (P.)
\& CHOTARD,
TOUS ENGRENAGES,
Réducteurs de vitesse à
vis sans fin et roues dentées,
à CHEVRONS HÉLICOÏDAUX,
tallés d'une seule pièce.
Ferrures, forge, charronnage, menuiserie,
R. PETIT, 52. (19 ${ }^{\circ}$ ). T. Nord 35.41.


Others came from André Citroën's experience of building cars at Mors, such as a new leaf spring damper arrangement and a new final drive for rear axles, which of course, quickly found its way into new models.
By the beginning of 1914, other companies had started to offer competing products.
As this advert shows, Piat \& Sons now offered Citroën-style herringbone gears and also a discontinuous double-helical tooth pattern, which it sold under the brand name Kosmos.

This last style was made using a completely different process that had been patented by a Swiss engineer by the name of Caspar Wüst-Kunz, in 1902
The words in the banner held by 'Father Time' in the Piat ad-


## Engrenages Citroën III

land from Keighley and William Sykes, from Middlessex were both awarded patents in 1914 for new methods of producing gears, including herringbone style. Both would enjoy considerable commercial success with their products.
However, increased competition and changes in the market suddenly ceased to be the biggest concern.
War
When businesses set out their objectives and strategic

plans for the years to follow 1914, few of them included international conflict, but on August 3, 1914, Germany declared war on France, and everything changed. In the same month, 2.9 million men were called up to join the army.

The starting assumption within the French government was that it would all be over quickly, but success would depend on mobilising the biggest possible force in the shortest time. Military service had been compulsory in France since 1798 , so the mechanism for an immediate call-up was already in place By the end of the war, almost nine million men had been enlisted in the nation's military.

Inevitably, almost all factories had to close. André Citroën returned to his artillery regiment, reprising his rank of Lieutenant. Just up the road, Louis Renault, who was by then a well-known industrialist, commanding several factories and a workforce of over 3,000 people, found himself at the same rank he held during his military service, that of a private soldier, the lowest of the low. It wasn't long until the French authorities realised they'd rather have Monsieur Renault overseeing the manufacture of aero engines and other war materials, but he was not excused the call-up.
Back at 31 Quai de Grenelle, there were only around 20 men
left; those who had been rejected for war service on the basis of age or infirmity. They were kept busy largely as sub-contractors for larger companies working on military equipment.
After the war, André Citroën had a very large factory, a considerable workforce and no


## Cylindriques et coniques

à Chevrons Taillés simples et multiples Réducteurs de vitesse
marche silencieuse
RENDEMENT 98\%
GRANDS RAPPoRis
GRANDS Rapponis
DE REDUCTiON


ÉTUDES,PROJETS et devis pour toutes transmlssions modernes avec ENGRENAGES CITROËN.
SPÉciALite d'enģrenages pour
PONTS ARRIERE dautomobiles et pour moteurs d'aviation.
RÉDUGTEURS DE VITESSE POUR TURBINES.
MACHINES-OUTILS
LAMINOIRS
BANCS D ETIRAGE TREUILS DE MINES
STi. ANOMYME dEs EMGRENGGES CITROZZN

market for his product, so his priority was re-tooling to produce motor cars. But that's a whole different story
Meanwhile, life at Engrenages Citroën started to return to something approaching normality, though we can assume that Citroën no longer had much time to spend at this business. His primary focus was now building and selling cars.
The advertisement to the left, from 1922 is little changed from years earlier.
Roughly translated, it reads: Citroën Gears
Straight and bevel gears. Single and multiple speed reduction Silent operation, 98\% efficient, large reduction ratio
The most resistant, practically no wear in any dimension. Feasibility studies, Projects and quotes for all modern transmissions with Citroën Gears
Special gears for automobile rear axles and aircraft engines. Speed reduction gears for turbines Machine Tools Rolling Mills
Textile works
Mine hoists
We can see that the Škoda factory is no longer mentioned, but the Russian plant is, even though it was nationalised in 1917, at the start of the Russian Revolution

A slightly different version of this advert included the maximum size of gears that could be

## Engrenages Citroën III

produced:
A Straight gears
up to 9metres in diameter
and Imetre wide
A Pinions
up to 2 metres wide and
2.7metres long

人 Bevel gears
up to 5 metres in diameter
and 70centimetres wide
A Internal gears
up to 5 metres in diameter and 30centimetres wide
Extending the Range
This ad from October 1923


LEMANCHON (ITROËN
CACCOLPLEMENT EUSTLQUE oDES TRANSMISSIONS MECONIQUES


## MOTEUR ANDREAU AGRICOLE fINDUSTRIEL

products on a more modest scale too.
One of the more intriguing examples is this small industrial/ agricultural engine made under licence from Jean Edouard Andreau.
Like many other figures who pop up in the history of the Citroën company, Jean Andreau was a brilliant engineer who succeeded in several fields.
He's best known for his work on aerodynamics in the automotive world, famously coming up with a radical streamlined body for the Peugeot 402 and later, a three wheeled light car for Mathis. However, his interests were broad and, once an idea took root in his mind $\pm$ he pursued it tirelessly. PAR HEURE DE MARCHE

CONSTRUIT PAR LA
SocieleAnonyme dee ENGRENAGES CIROĒN
51. Quai de Grenelle _ Paris
obtained a licence from the Swiss company Pulvis AG to manufacture a load and speedsensitive clutch they'd developed to provide start-up and overload protection for large electric motors. It achieved a mention in a couple of documents but doesn't seem to have made much of a splash.
Jean Andreau's Engine
Whenever Citroën's Gear Company is mentioned, the focus is always on immense gears that dwarf a human figure, but during the inter-war years, the product portfolio extended to


Engrenages Citroën III

competition organised by the Office National des Recherches \& des Inventions.
This really was an ingenious concept. The adverts of the day stress how economical it was, without giving any hint how this ground-breaking efficiency is achieved.
This excerpt from one of Andreau's patents starts to give us an idea what makes this engine so different from the norm. We can see there are three connecting rods, $\mathrm{A}, \mathrm{B}$ and C , together with two crankshafts, which are geared together.
The net effect of this rather complex arrangement is to allow each of the four strokes, admission, compression, expansion and exhaust to be of different lengths.
The figure above explains what this means in practice.

The first two illustrations are pretty conventional. The piston descends, drawing in a fuel-air mixture and then rises to compress it. The size of the volume above the piston when it's at its highest point determines the compression ratio.
However, things get a bit more unusual when the mixture is ignited, forcing the piston down. In the Andreau engine, the piston descends further than it did on the induction stroke, enabling the hot gases to expand further and hence extracting the maximum energy from the fuel. Similarly, as the piston ascends again, for the exhaust stroke, it gets almost to the very top of the cylinder, emptying it completely, ready for a fresh charge of fuel and air.
The difference is significant, in the sales documentation, the

engine is described as having a stroke of $90-135 \mathrm{~mm}$, a difference of $50 \%$ between induction and exhaust.
We can see the Andreau engine offers two immediate benefits, an extended expansion phase and improved scavenging of exhaust gases. In fact, there's a further sophistication here, in that the engine has two ways for the exhaust gases to exit the cylinder. In addition to the conventional cam-driven pop-
pet valve in the head, there is a port in the lower part of the cylinder that's uncovered, twostroke style, at the bottom of the combustion stroke. It's estimated that $80 \%$ of the exhaust gas leaves the cylinder via this means, leaving just the remaining $20 \%$ to leave via the traditional route. This allows the ex-

haust valve in the head to be relatively small, leaving space for a large inlet valve
The piston does not travel so far down the cylinder during the induction stroke, so these ports remain closed during that part of the cycle.
On the negative side, there are additional losses from the additional joints and bearings, but there is a compensating factor. The primary connecting rod, shown as $A$, in the first diagram, remains close to vertical throughout the power stroke, thus reducing friction between the piston and the cylinder wall and minimising the tendency for the bore to wear on one side, causing ovalisation; quite a problem in conventional engines of the day.
In the production version of the engine, both crankshafts were available on the outside of the crank case. The nominal engine speed was fixed at I,300rpm, but because the intermediate shaft was geared down by a factor of two, a 650rpm output was also available, to provide more versatility in use.

At the time, this engine offered record breaking fuel economy of around 165grams of fuel per horsepower-hour in official test.
The design allows the com pression ratio to be optimised to suit different fuels without
compromising the overall benefits, though it's believed only petrol versions were marketed.
The Andreau engine was manufactured and sold by Engrenages Citroën from 1926 until at least 1934. It's believed several hundred were made, but a more precise figure has proved elusive.
Why was it an attractive product for Engrenages Citroën to build? Well, of course, the two crankshafts were coupled by herringbone gears.
André Citroën himself commissioned Jean Andreau to build experimental four and six cylinder versions of his engine, with a view to fitting them into production vehicles. Citroën must have been pleased with the results, because it's reported that he made Andreau a gift of one of his six-cylinder cars.
It's not known why development ceased, but it may have been because absolute power output was regarded as more important than fuel economy at the time. It's recognised that engines of this type have a relatively low output power for their swept volume, compared to their more conventional four stroke cousins. There may also have been problems making it run successfully over the wide range of speeds required in the automotive world
As for the demise of the utility engine, perhaps manufactur-


## Engrenages Citroën III

ing cost was against it, even given the operational economies it offered, or perhaps the market moved towards small diesels instead.
Engrenages Citroën continued to thrive in the post-war era. Inevitably, as the years went by, there was a move away from bespoke gears to standard products, for example fully enclosed modular reduction units.
In 1962 the com-

pany acquired Réducteurs Messian of Cambrai, increasing the total headcount to over 900 staff.
One might have expected consolidation; but no. Operation continued more or less as before from two sites. The Head Office remained the factory that Andre Citroën built in 1911.


In 1974, Citroën-Messian became part of the PSA Group, along with the car business. In 1977, Citroën-Messian bought the Durand company and rebranded itself CMD, which still exists today.
It was retained by PSA until 1991, when it was acquired by Dynaction-Mecadyne. The business was divested again in 2005, becoming part of anoth er French multinational, Groupe CIF; Compagnie Industrielle et Financière de Bussy SA.

The site in Cambrai, originally
founded by Robert Messian, is still in operation, but the Quai de Grenelle was vacated in the mid-1970s, marking the end of the connection with André Citroën.

Paris in the 1900s
This map shows just how instrumental the gear factory was in shaping the future geography of Citroën's empire in Paris.
In theory, his munitions plant/ car factory could have been sited in any number of places. In the end, it's no surprise he chose to build it just down the

## Engrenages Citroën III

road from the first plot of land he'd bought, five years earlier. There's little left to see today. The Gear Factory is now a hotel, the Tour Mercure, as is the former axle and drivetrain plant at 61 Quai de Grenelle, which is now a Novotel. The old Mors factory was home to Citroën's

Research and Design teams for many years, before being demolished to create another apartment block.
Much of the main factory site has been turned into Parc André Citroën, with a hospital, offices, shops and apartments covering the rest. The name of
the park and a small bronze bust are the only links to the past. A visitor today would hardly believe there was once a factory employing well over 10,000 workers on this site. Andrew Cox

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The excerpt above is from an 1845 map which shows that the gear factory was built on the site of the great forge erected by Établissements Cail.

## Les Jouets André Citroën. . .

## A Vintage Toy story

itroën's centennial timeline highlights as a milestone for 1923 'André Citroën starts making toy cars that are miniature replicas of "dad's car" Knowing nothing about this part of Citroën's operation, I did a quick check of Citroën history sources. It appears the Citroën historians are more interested in the real car part of Citroën, because the toy story does not feature. I obtained about two sentences of information. I finally gathered the information I needed from French toy car collectors' blog sites. It is a very interesting story, so here goes.
As we know, André Citroën was a marketing genius and was the forefather of many of the

marketing techniques in use today. His marketing techniques are no better illustrated than by his 'toy story'.

One of André's early slogans was 'the first words from children must be Dad, Mum and Citroën'; so where did he get the light bulb moment to use toys? Well, in fact, he didn't.
The story starts with Fernand Migault, who had taken over his father's small toy workshop in Paris, in 1919. He already had a keen interest in sporting automobiles and cycles and wanted to develop the company and introduce quality products related to automobiles or mechanical toys. He was aware of the Citroën phenomenon from the start, and the full pages of advertisements in favour of type $A$ and B2 made him understand that the search for the development of his business should, directly or indirectly, accompany the programme of this Citroën factory.
He developed the idea of toy Citroën cars as a marketing strategy for André. Fernand was fortunate to have a cousin, Marcel Gourdet, who was an expert tinsmith and small time model maker. He commissioned him to produce a Citroën B2 model in exact detail. The model was built and it looked great. The next challenge was to arrange a meeting with André.


Fortunately he had a friend who set it up. Initially, André was surprised by the proposal; but, after analysing and inspecting the model, he figuratively grabbed the light bulb and turned it on.
André Citroën, in his office on the second floor of Javel, where he was assisted by MIle de Les Cases, studied the toy in question. Migault's offer came as a surprise at first, then was analysed and dissected, and André Citroën was undeniably enthusiastic about it. As he him self once said: 'If the toy is well made, if it faithfully reproduces the real model, it will undoubtedly evoke in the child, but also in his parents, in his entourage, in the retailers who will sell it, and consequently for the public who will see the brand 'Citroën' exposed everywhere and that undoubtedly will constitute marvellously effective publicity, by multiplying with thousands of specimens a durable publicity support and of course always offering a thousand other possibilities to speak about it.'
Later in the same speech: 'It should be pointed out that, in addition to this enormous publicity, there would be a priceless advantage, because in fact it
The CIJ factory, at Briare employed many women who, in the aftermath of the war, often were widowed and in need of an income.

## Les Jouets André Citroën. . .

would be free, constant publicity, or at least at a very low cost and with no comparison with the result.'
In October 1932, he also told his dealers at a banquet after the Paris Motor Show: 'A product may be good and it may stand out, but it still has to be publicised. ...People say to me every day: 'Why do you spend whole pages in the newspapers? Why do you light up the Eiffel Tower? Your cars are famous. Everyone knows they exist; there are 700,000 of them on the road

in France. Well, I think we stil need to get the attention of the 40 million inhabitants, even the children we take in at an early age because, as I said at Columbia University, the first words a child needs to say are: "Daddy, Mummy . . and Citroën!"
What followed resulted in Citroën becoming the first car company to produce scaled down replicas of its models.
At the time, in 1922, when a contract was arranged between Citroën and Compagnie indus-
trielle du joue [CIJ, Migault's company], they only had seven personnel. The workforce would increase to 200 employees. The factory was set up in 1923 in Briare and it is believed Citroën assisted in the design, layout and in determining the equipment needed. The toy production line arrangement was very similar to Citroën's own assembly line for mass production.
Citroën's production line methods resulted in large cost savings so, his assistance in setting up Cll, no doubt, repaid Citroën with very cost competitive toys. The layout had separate workshop areas for tooling, bar turning, stamping, screw cutting, soldering, carpentry, degreasing and painting, assembly, finishing and packing. The photo of

through Citroën dealerships throughout France, and in Parisian department stores. The objective was to attract children to buy toys in the dealerships, accompanied by their parents. So, when they went in to buy the toy, the salesperson would also introduce the real car.
The toys were displayed in the showrooms' front windows and, in the lead up to Christ mas, the models were arranged with stunning scenic backdrops. When Citroën released its new range of vehicles, the new toys


## Les Jouets André Citroën. . .


mixing and delivering the paint they were currently using.
The only name on the toy would be that of André Citroën. At the time, it was customary to display the toy manufacturer or toymaker's name. André Citroën's name was boldly stencilled under the toy. The strategy was, that when the child turned the toy over to regularly wind up the spring motor, they would see the Citroën name
Over time, they would associate car and Citroën, so, in adulthood, they would naturally buy Citroën without asking questions.
It was an exclusive contract. Clj could only make Citroën model toys.
The toy cars were made in 1/10th scale. They were big models around 38 cm long, well made from nickel plated sheet and had fine detail, as you can see from the photos.
of that range also had to be available. This involved Citroën supplying CIJ with drawings and access to the pre-production cars.
The models had to be exact miniature replicas of the real vehicles. The colours used on the toys had to match Citroën's colour range. Citroën helped by


Some of the early versions had wooden parts. Most had a wind up spring mechanism that drove the back wheels. The front wheels turned through the miniature steering wheel.


## Les Jouets André Citroën. . .

the 5 CV , so getting girls used to the Citroën brand for later in life was an important marketing strategy. Promoting the toys as unisex would also widen the sales market. The boy in the poster is driving a Citroënnette 5 CV pedal car, but that is another story.
André's view was that the toys, being exact replicas, were a cheap form of ongoing brand recognition, so the more he could sell, the better. Citroën's website states that more than 30,000 examples were produced over a 10 -year period.
This is not correct. Citroën managed to sell hundreds of thousands over that period. It was recorded that, in 1925 alone, 47,489 of the B2 and 36,413 of the 5 CV were delivered to Citroën. The 5CV was priced at F29, which would equate to around \$60 in today's world.
They also sold chassis constructor kits which were influenced by the Meccano construction format.
During the ' 20 s and ' 30 s , all these toys were available from Citroën branches, especially at Christmas, when magnificent dioramas depicting French or overseas landscapes were used to present these little cars.

At the time of preparing this article the
green BI4 on the left was for sale on
eBay. The price estimate was Us $\$ 10,000$.

What ecstatic joy any child child felt when their father, acceding to their wishes, and perhaps even anticipating them, entered the shop and allowed them to leave with a BI4 Conduite intérieure and [this too is remarkable] a spare set of Michelin rubber tyres.
The main stages of Citroën's toy production almost followed the release of the real models: in 1925, the delivery cars and

the B2 taxi appeared; in 1926 the new BI2 torpedo, the taxi and the van; in 1927 it was the turn of the numerous Bl 4 s with their striking platform, coupé and city coupé; in 1928, the C4s and C6s arrived in countless versions, but, above all, the miniature models in plaster and flour in I:43 scale.
The 'plâtre et farine' toys were an immediate success, selling 5,200 that year, and production soared until 1933, when 576,000 were sold! In 1933, a total of $850,000 \mathrm{Cl}$ toys were sold.
The Jouets Citroën 1/1oth scale toys were produced from 1922 to 1934. But this is where the similarity between the little Citroën and the big Citroën becomes apparent once again, because the Citroën toy was so closely associated with the life of the factory, and so closely represented the factory's production, that when the difficulties that led to Citroën's receivership came to an end, the same difficulties arose at Briare by osmosis. Citroën was dismayed when, in 1934, in a bid to diversify, CIJ began manufacturing Renault toys.
For a while, it was envisaged that the toys would be manufactured by the Citroën factory itself, and a few toys were undoubtedly built, but it was a flash in the pan.
Buying an André Citroën Toy

If you have read the story so far you will now be aware the toys were an important part of early Citroën history. Want to get your hands on one and have it displayed in your lounge? There is some good and bad news regarding the toys.
The bad news. Most of these toys are now 90 plus years old, and with their fine detail and build quality, they are keenly sought after by vintage toy collectors. Serious collectors pay eye watering amounts for rare examples.
In 2018, a van was put to auction in America. The auction house gave it an estimated value of two to three thousand dollars. Some collectors believed it to be a rare signage design that didn't make the final production range. The hammer fell at US $\$ 48,000$ which, if you were bidding from New Zealand, would be just under NZ\$80,000. [below]
The good news. A recession is predicted to hit Europe where


## Les Jouets André Citroën. . .



## Member's Model: 5 CV

// came to be the owner of a 5CV Citroën quite by chance.
With my involvement in restoring a 24/60 Sunbeam coming to the end, Up The Creek Workshop [UTC] in Castlemaine, suggested that I go and look at a Wolsit project owned by Damian O'Doherty in Ballarat.
It was to be an interesting restoration and creation project, being a Florio 1907 Wolsit Racer with a 5.5 -litre engine designed by Wolseley and Italian designers.
Yes, English and Italians working together!
Anyway, while looking at this very daunting pile of bits without a body, Damian mentioned that his nearby Citroën, 'Lemondrop', was for sale.
So I chickened out of buying


Before Damian, who had the car mostly stored in his shed for $12 y e a r s, ~ ' L e m o n d r o p ' ~ h a d ~ b e e n ~$ the project of Frank and Bery Smith, and their friend Tom Walters, for nine years. I have been unable to contact Frank and Beryl but have attached some notes from the Gladstone Vintage and Classic Car Club to do with their car creation [Since writing this article Paul has been
able to make contact with Frank and Beryl. Paul is very sure that they will be very happy to read that 'Lemondrop' has not only found a new home, but also been beautifully restored. Ed.]

Here is what Frank originally wrote It all started after finding a right hand mudguard, a valance panel and a running board. After little scratching around in the dirt


## Member's Model: 5 CV

I dug up a door catch, a door handle and the beading from the only door.
The door beading allowed me to ascertain the size of the door. The remainder of the measurements were mainly estimated from an enlarged photo of an original Citroën. Tom Walters, using his plumbing skills, bent the body parts while I completed the shaping. Most of the timber was obtained from shipyards, with the sections on the door, over the cowl and door frames being fashioned from maple. The body was sheeted with Zincaneal, tacked onto the wooden frame.
After the body, the mechanicals were commenced with the re-boring of the engine, valves re-seated and reground, etc. The painting and the upholstery were undertaken by me, and after about nine years the restoration of 'Lemondrop' was complete.
It can be a long, drawn-out journey, not for the impatient, and when all is found, the old parts will need tender care for, mostly, they will be old, rusty and tired. 1988 Kingaroy
A good chassis, springs, a front axle, motor and radiator. This motor had been used to drive a bench saw and a connecting rod had penetrated the bottom of the motor.
1987 Rockhampton
A broken chassis, springs and


## CARS OF France

 …en. . . . PH: 94997522CITROËN Service Full \& Part restoration
Proxia \& Sagem Diagnostic Equipment
Sphere regas, change over starter motors
Change over alternators \& hydraulic components
Spare Parts New \& Used
Licensed vehicle tester RWC
Less 10\% CCCV members

## Member's Model: 5 CV

a few body parts. These body parts were used as patterns. No original tin exists on the car, except for the bonnet.
1988 Brisbane
A good gearbox was found in use driving a factory shaft. 1988 Bororen
A motor and gearbox that had been used in a boat, but it was missing one connecting rod. This motor was good for parts, but the topside of it was rusted out. But it did team-up well with the Kingaroy motor to make a good one. The pistons were from a Morris Minor.
1990 Brisbane
Magneto, wheels, bonnet, brakes levers, an original jack, starter motor and spot lights. 1991 Brisbane
Pedestal for pan. Brake levers and the radiator cap.
Fancy scratching around in the dirt to find bits and pieces necessary to restore or make a car.

The forged door beading that Frank mentions took a lot of work to give it a nickel plated finish, having been previously painted. It involved sand blasting, welding and grinding, soldering up the rust pit holes, sanding, copper plating and polishing, [twice] and, finally, nickel plating.
However, I digress.
To start the TLC process, and make the car brand-new again, I have learnt in the past that to

do that properly you must go back to square one. So I pulled the car apart.

Then good fortune struck.
I heard from UTC that the Motor Life Museum in Wollongong had an incomplete 5CV they wanted to sell, so up we went to bring it back on a trailer
From this donor car, there were some parts which were particularly useful, including the steering box, the new bottom end of the engine, the rear end the hood irons and bows, the terrific individually stamped Michelin wheels. But we were also able to make a single good part out of two less attractive examples, like a switch, for instance.
I should also mention that I was able to get a build plate, a double chevron oil pressure gauge, a tail light and a St Christopher badge, to bring good luck, from PreWarCar.com
Also French car club badges came from Donnington's Auctions along with new cast aluminium hub caps from Bendigo. It has been a two year journey to bring the car up to asnew condition, using Andrews Automotive Restorations for final painting, UTC for most of the mechanical work, Compleat Auto Upholstery for the trimming, and my friend Vic for the bright work.
The attached photos tell the story better than a thousand


## Member's Model: 5CV

words and also show other cars in my collection.
What would André Citroën say if he knew it took II years to build a 5 CV in Australia? He would turn in his grave... 'Les Aussies, so slo mon dieu, sacre blu... or bloody hopeless,' in French, of course.

The car drives well but doesn't like doing more than 55 kph , so the hazard lights are on when beyond the city speed limit.
It's also a bit nervy to drive in traffic because it doesn't like to stop!
We took it to Tasmania for the pre Cit-In tour but we didn't make it past first base in Ulverstone at the Big 4 Caravan Park.
And because no one from the organising committee has been in touch with us since then would like use this opportunity to tell them that the car is still in Tasmania and that we flew home safely.

On arriving at the Big 4 Caravan Park, the engine started to run like a chaff cutter, and despite the very generous efforts by Joe from Bris bane [who has a beautiful two-door Light 15] and me, we didn't succeed in getting it going again.
We both thought it was a faulty magneto.
The starter motor also retired itself which meant lots of attempts at jump


## starting

To make matters worse, that day I mucked up the accommodation booking [there is also a Big 4 Caravan Park in St Helens! ] and, because of a tri athlon, there was no local accommodation. We had to catch a taxi to a Burnie hotel, just to rub salt into the wounded organiser [me].
This is all my wife's fault, of course, because she assumed, incorrectly, that I could do as good a job as her in organising the accommodation.
Anyway the next day, after a few necessary beers the night before, it was a taxi back to the car again but for no avail. It wouldn't go
So here we were, two elderly people, stuck overseas in a strange country with no car and no accommodation [there was lots of accommodation though, for eight days, in different places in Tassie, and all prepaid for].
The RACT flatbed truck finally turned up at 5o'clock, so we loaded up the car and got in with the driver to go to Longford where most of the car still is.

It is in a shed in my daughter-in-law's family berry farm.
I say 'most of the car', because the next day, with my brother-in-law Tom's help, with whom we stayed in Launceston, we took off the magneto and starter motor and carby, and posted

## Member's Model: 5CV

## For the Love of Tractions

them back to Castlemaine.
They have now been looked at by UTC and certified as good to go.
It will be a month before I am able to reinstall these bits on the engine as I have just been given [not financially] a pacemaker, but being positive, I have booked the 'Spirit of Tasmania' for the return trip.
So please all keep your fingers crossed for me.
If you think that this story is a tale of woe then you'd be wrong.
It is all part and parcel of being afflicted with the disease of having to collect old cars and restore them.

You learn to expect the unexpected.

In the restoration process you are often confronted with seemingly impossible challenges but you soldier on to finally defeat, and conquer [thank you Winston].


And in this process you hone your skills, meet lots of very interesting, but sometimes frustrating, people [you want it WHEN!?], learn a helluva lot, do lots and lots of skiing [spending your kids inheritance], and having great fun.
Au revoir,
Paul Johnson


$S_{0}$ubiaco is now a city in its own right, but back in my Primary School days, the suburb was one of many rising from Perth's sandy coastal plain.
Grade Five was a good year, and my primary life activities of marbles, cricket and football were complemented by the addition of Catherine M. Catherine was not at all interested in marbles, cricket or football: all the activities then played with intent, and some still played, in the hot, dirty, black sands of Subiaco's playground.
Catherine, however, for some unknown reason, would let me walk home with her after school to her home which was half way to my home some four miles
further. Her home was above her parents' corner shop and located in a quiet area of Subiaco served by a quiet meandering road system in those early days of developing suburbia.
Walking home on these occasions was a 'win-win' situation: the three-penny piece bus fare, normally given to the driver sitting in his enclosed half cabin over the engine and separated from the public by a glass sliding window and a dirty money transfer counter, was saved.
The money saved on the bus fare home held in my hand, along with my varying fortune of marbles in a sock, and Catherine's hand in the other.
Some forty years later, those quiet back streets turned into

No, thin is not catherimes parents milk Bars buth ilin a Perth milk Bar of the 0950ss



## For the Love of Tractions

major roads, but the lesser ones have not really changed and provided me with several 'rat runs' to navigate from one congested area to another.
One of these 'rat runs' would see me regularly pass, on many early insignificant occasions, a discarded black car left to obviously decay in the rising verge grass.
Curiosity eventually made me stop and investigate the ruins, and I was increasingly interested in the experience, just as I was with Catherine, many years earlier, whose corner home now is a thriving, classy coffee shop;
This is my four-speed ID Traction along with my first 220 : a 1955 Mercedes. Both of these marques have run parallel through my life both for their diverse and interesting differences.
one of many common in most of suburbia these days.
The black car had big headlights, flowing mud guards and a chrome grill. I reflected on Catherine momentarily. After a negotiation process, the car was mine and eventually it was dragged from its hiding place, onto a trailer, and taken home with me.
Later, those in the know, told me the car was a Traction made by Citroën in about 1948, assembled in Slough, England, and given the 'Slough touch' of wood, chrome and leather.
Now in my possession, the car has been given many new face lifts and mechanical repairs. The most significant, and engineeringly worthy, modifications, being the installation of a highspeed crown wheel and pinion

gear and additional output drive shaft bearings on the gearbox, courtesy of an excellent design and engineering manufacturer in England. This modification has endeared itself to me as being almost as good as the, more common, ID four speed conversion for a lot less fuss. Less fuss especially if ID rods were installed in the Traction engine at the same time. The rod selection in my spares box exhibited stretched big end caps that I had not noticed before, so more attention was required to obtain a good set.
This car has been driven across Australia twice; most notably to be the only Citroën could see attending the Shannon's 2002 event, which attracted some 2,000 entrants.
Time moves on, and an ad-

vertisement in a magazine provided a trailer trip to the East coast to obtain my second Traction; a partly finished project with many spares.
What could I do!
On the way back the trailer broke in half along both top rails due to the overzealous loading of many heavy spares.
When in trouble someone appears and helps you and this was in the form of a kind, and clever, mechanic from a back street garage in Ceduna who welded a new top rail repair on both sides. He went out of his weekend safety zone to help us,
Further on in the journey, and approaching Madura Pass, on the saucer's rim of Western Australia, my co-driver announced that he had just seen, out of his side window, a wheel

## For the Love of Tractions

racing past us, and vanish into the Madura scrub!
We stopped our now threewheeled trailer, recovered most of the jettisoned bits and realised all the wheel studs had sheared off from the Holden hub. I had brought many bearings, seals and grease. But not any studs!
We were stuck in Madura at the bottom of the escarpment!
That night we enjoyed, as best we could, what hospitality Madura could muster, which was mainly in the form of a huge campfire, and carefully stowed and carried beverages. This is a typical formula I have used on many of my bush trips.
My friend eventually went to sleep in the Pajero while I stayed up next to my Traction inventing many ways to solve the problem.
At about 02:30 a road maintenance truck, pulling a large trailer, rolled into a roadside bay in the darker perimeter of the scrub, and eventually the lone driver walked slowly towards me from the perimeter of darkness.
We exchanged the usual bush greetings and discussed world problems and solutions. One of the main problems was the fate of my Traction on its foreshortened journey.
As we spoke my eyes slowly focused, strained at first, at a very large generator on the
trailer and next to the generator was an unbelievable welder. The electrical power unit looked as big as the Murex ground power units we used to start the turbo prop engines back in my Perth aircraft tarmac days.
My early morning road maintenance man had a distinct 'in the bush for many weeks' look about him, with his long beard covering most of his chequered shirt, from which a long pair of skinny jeans-type trousers covered the rest of him, down to the rubber thongs on his wellused feet.
'Do you want me to fix your broken wheel?' he asked. 'I

> While this article is about John's Traction collection, long term readers will also recall that he is keen follower and collector of arrière models. Check out the video on the Club's website.

RACING ROSALIE

could weld it back together and not use any studs and nuts for assembly back on to the trailer's side.'
The Murex roared into life and you could safely say everyone in the caravan park would have been awakened. 'Put the wheel on the ground and place the broken hub in position.' I did as requested. 'Now stand on it while I weld the bits together,' was my next instruction.
Not having any shoes on at this time, I was hesitant to oblige so the bearded angel lent me his rubber thongs. What was I thinking? I stood, as instructed, and the arcing began.
The car park lit up as if a noisy spaceship was landing, and after the completion of a magnificent welding job I found my borrowed thongs had several five stud burn-mark patterns to authenticate the weld had suffi-
cient penetration.
After lots of appreciative hugging and suggested children's names we parted company.
The trailer wheel was reunited with my Traction, and with my still-sleeping friend in the Pajero, we were on our way before the sun rose.
Reaching the top of the escarpment my friend finally stirred.
'What's that barbecue smell in here?'
I said, 'Go back to sleep,' and we headed for home!
This car began my interest in the ID conversion which, in those halcyon days of thought and innovations, I diverted from the common accepted mechanical path of an ID gearshift installed inside the bulkhead and a maze of rods and bell cranks down the right-hand side, and eventually operating the ID gearbox.
I wanted, for me, a more direct path down the left side of the engine from a bespoke instrument mounted mechanism and via two flexible cables to another custom lever mechanism on the left-hand side of the gearbox. This worked well for me and, along with the installation of a dual downdraught carburettor and a 123ignition, the car performs well and has been across Australia twice to Cit-In Events.
The narrow engine bay of my

## For the Love of Tractions

car allowed just enough space for my modification, but the wider engine bay cars would be more user friendly.
My third Traction, another 1950 or so, Slough assembled car was a local purchase from a fellow who had pulled it apart but then found he had to abandon the project.

Again, a trailer load of Traction bits arrived at my shed, was given a number, and told to sit down, and wait a while.
This car was rebuilt, from what was available, to be a reliable car in its standard form, and I liked it a lot because it didn't jump out of gear, wob-
ble the front end when braking, shudder on the clutch and drive shafts or whine in top gear.
All these symptoms Traction owners would have possibly encountered in many forms and corrected in their favourite method,
This car has also attended Cit-Ins over East.
New Zealand is a source of well-maintained, and daily usage older cars.
A friend of mine here in Perth originated from the South Island. He came from a knowledgeable family and circle of Traction owners and had imported into Perth a pre-war 7C


Traction in original and complete unrestored condition.
In exchange for some money, a very rusty garden trailer and two bales of wool, the car was mine and I parked it in one of my sheds to wait for a time slot.
At first, I probably didn't completely appreciate what I had in front of me, but when the time came to work on the rebuild project, pleasure began to unfold.
I liked the pre-war Traction look in its original design with the obvious engine flaps, skinny John's lovely 7C Traction, with its beautifully recreated 'Comet' door trims and superb pleated leather seat upholstery.
mudguards and the extra effort in the chrome work.

The interior is where Citroën excels, in my opinion, with the curved wooden dash set-off by round gauges. Wooden window winder knobs are a classic feature.

Car upholstery is a dying art here in Perth, but luckily, my upholstery friend, an ex-aircraft upholsterer, faithfully reproduced a complete leather interior featuring the Comet door card design and a vintage style narrow, and raised, seat fluting.
The upholsterer was co-employed by Mac Robertson Miller Airlines at the same time as my


## For the Love of Tractions

apprenticeship; I959 to I963.
At the end of my apprenticeship, I was too young, according to the Department of Civil Aviation regulations, to hold an aircraft licence but I had passed all the exams to hold a DC3 engine and airframe licence, which was later stamped in my book.

A great day for me.
Mechanically, the 7C is of that period and has a smaller engine capacity, resulting in modern traffic speeds being a problem also, the clutch is extremely hard, which makes driving tedious at times.
Braking is also hard, because the 7 C seems to have smaller
diameter brake drums, but all of this is part of the car's evolution to the post-War cars.
All these early mechanical issues don't stop the 7 C being my favourite from the period of the Traction's evolution into a remarkable series of models having a great combination of strength, style and innovation.
André Citroën did a great job in sourcing ideas from around Europe and America and combining the best innovative component ideas into a great classic, and I often ponder what the Slough interior would have morphed into if no war had intervened.


Over the years the Traction fleet has been reduced to a remaining number of four, and I chose to keep the ID conversion and the 1937 7C Tractions and have moved onto other rebuild projects. I also kept the high-speed gearbox and improved Traction motor combination as a future standby unit.
The Traction is in its 90th year and this reminded me that not long ago, it seems, I drove over East to a Cit-In with a large ' 75 ' decal on both the front doors,
John, and his ever-present canine companion, Joey, are not averse to also working on the odd DS.
to celebrate that anniversary of the classic.
Thanks to Catherine, all those years ago, for showing me the way to my Traction experience and in saving me all the threepenny pieces. I kept all of them in my golden Commonwealth Bank tin, with its anti-retrieval flap in the top, and invested them in my Traction purchase experiences.
I also have most of my marbles, I think!
I keep them in a jar on my bed side table as a reminder; along with my teeth, hearing aid and reading glasses!
John Freeman and his dog Joey.


## Member's Model: B 14 F

1am a car enthusiast with a $\triangle$ love for Citroëns, and own a 1927 Citroën B 14 F. It was exciting to be offered the opportunity to share my love for Citroëns, and in particular, this car with others.
Being built in Italy, as opposed to being built at the French factory, makes this car a little unusual. Before being imported to Australia, from Italy in the 1980s, it was restored

Once imported, the car then came from a bankruptcy sale in South Australia and was transported down to Tasmania. It was owned in Tasmania by a guy at Hagley House, about

be able to read the full story is a coming edition. Ed.]
After this, in 2015, I acquired the car and, while it had been loved it was looking fairly dilapidated; sitting in a farm shed with possums living above it. It needed time spent on it and care lavished on it. I got to work to clean up the paintwork, tidy the car and polish it to restore it back to excellent condition.
Once the exterior was back on track, I focussed on the internals of the engine and running gear of the car. After the valve regrind, I got the engine up and running, including repairing the magneto, I have used my Citroën rather sparingly. While it is running, it is also the original engine and, as you'd expect, it's
very tired
I was invited to take the car to MotoClassica in Melbourne in 2019 to celebrate l00years of Citroën, and while talking over there, I had a gentlemen with an Italian accent come to chat. It was amazing to find out that he was one of the previous owners of the car. Indeed, it was he who had imported the car from Italy to South Australian all those years ago.
It was sad to hear that selling the car was due to financial struggles back then, and he still misses it. Indeed, in some ways he still sees it as 'his', as it was he who brought it to Australia in the first place.
He still has the photographs and information about the res-


## Member's Model: B 14 F

toration and information that hasn't made it along the chain to me when I purchased the car. It was great to receive all the information so that I can ensure the story stays with the car throughout its future years.
In the documents he gave me was a photo album of the restoration in Italy and all the photos are black and white and words typed on a typewriter. There are also line drawings showing how thing went back together, even details such as the upholstery details

They've done a very nice job restoring it; all the fasteners are original and there are no Phillips head screws. Everything is as you would expect from that era.

As a full body car, it has a full metal frame and a roof, not like the canvas topped car with a wooden frame. As much as this is nice, the performance suffers badly for it.

Currently, I have taken the engine out of it and am working on rebuilding a C4 engine from 1929 to put in it. This will give a big advantage of a threebearing crank engine instead of the current two-bearing engine. It also has a distributor with an advance mechanism as opposed to a fixed magneto that came fitted to the original. While not 'original', I think this will be a sympathetic modification
Most people wouldn't know that it doesn't belong, but the change will make the car a bit

more usable, especially being in Tasmania. With all the hills, and long, windy country roads, the old engine just struggled everywhere. The car is down to walking pace going up most hills.
It's quite an interesting car with a full crash gearbox with three gearbox ratios. Being a three speed gearbox, the first and second ratios are a bit like you would expect in a in your normal car. Then the last gear , third, is more akin to about fifth So, if you can't hold top gear on a rise, you have to slow all the way down to 40kmh before you can actually go back a gear.
The car was six-volt orginally, but the guy in South Australia had converted it to run on eight-volt. By the time I ac-
quired it, the battery had failed. I converted the car to 12 -volt, but to reduce the voltage to the starter motor a little, I fitted a slightly undersize battery lead seven metres long under the floor. This works perfectly.
There's no risk of too much heat or fire because you're never cranking for long enough to produce any heat in the cable, but it does a perfect job of dropping the voltage to 81/2-volts while cranking.
I hope to have the new engine fully rebuilt and installed by the end of this year and then hope to be able to use the vehicle a bit more, and get her out to enjoy the beautiful Tassie towns. Bauke Meijer ~ Tasmania


## Totally Traction



## Totally Traction

them back in the same position on the same camshaft, I would probably have considered that the wear was not significant and not worried. But because they are going into a different block, on a different cam shaft, I decided they needed to be replaced. I would have bought a complete set of eight, but the TOC spares service had only six in stock, and all the other suppliers seemed to have none at all. Now the TOC also has none, and my engine has six new followers and the two old ones that looked to be in perfect

## Below: Machined flywheel with spacer. Right: Machined flywheel, fitted with spacer

Facing page: Flywheel trial fitting
condition
The new followers have drain holes, whereas my 'original' followers have no hole [are they really the originals? I have no idea]. The purpose of the hole is to drain oil from the bucket, but I am not sure of the benefit. Is this to lubricate the camshaft, or to allow the pushrod to sit better in the bucket? Anyway, my engine now has a mix This, of course, has nothing to do with using Perfo parts on an ID engine ~ the cam follower is common to both.

The flywheel returned from the machinist. I had asked them to open up the 8 mm holes to 10 mm and to add another 10 mm hole for the location

dowel pin in order to match the ID 19 crankshaft bolt and dowel holes. The holes are on the same PCD, and the dowel hole is halfway between two bolt holes. If that had not been the case, I would have had to send them the crankshaft, which would have been very frustrating. As it was, I just had to make sure I identified which two holes the dowel needed to go between ~ this matters because one of the bolt holes is offset by a few degrees, so that the flywheel always fits in the same place. This is necessary because there is a slot in the flywheel that marks 8 degrees before TDC
I also asked for 2 mm to be

## Totally Traction

camera inside the bellhousing to see how much headroom there is. I also have to plan for wear of the clutch material, so I am very happy with the 2 mm spacer.
The spacer could not be more than 2 mm thick because the rebate in the flywheel in which the crankshaft locates is only 5 mm deep. The spacer reduces that to 3 mm , but there is a 1 mm chamfer which only leaves 2 mm engagement, which is about the minimum I would be happy with.
The work was done by Automotive Machine Services in Ditchling, East Sussex. I would be happy to recommend them to anyone. https://www.automotivemachineservices.co.uk/. They were very pleasant, gave advice and were a bit quicker and cheaper than they originally said. At some point, I will get my Perfo crank ground and rebuild that engine with new con rods and shell bearings. I will ask AMS to grind the crankshaft ~ | think it has one more regrind left in it.
A huge amount of oil and gunk had accumulated on the engine and gearbox and inside the clutch housing [but only on the gearbox side of the flywheel].
My crankcase breather on the side of the block is completely open, but it seems from the parts list that it probably should have some kind of mesh fitted Is this to keep small animals out
or to keep oil mist in? I will investigate, but for now it remains mesh-free.
The filler cap also acts as a breather and allows some mist to escape and settle on the rocker cover and then run down the sides ~ this gets a wipe down every time I check the oil level, and I'm happy with that.
But what about the gearbox leaks? There are three ways for oil to escape. The shaft seals to the drive shafts, the input shaft seal and the gasket between the casing and the bellhousing. I notice, as I have been looking at ID parts lists recently, that the lat-

an ID as the gearbox casing and bell housing are designed differently. But, on a Traction, all you can do is make sure the mating faces are clean and undamaged with a decent gasket, with appropriate sealant. Particular attention must be paid to the Tjunction where the shaft seal OD meets the gearbox casing and the bell housing.
The output shaft seals are very simple and crude with a single lip and no pumping action. A while ago, I fitted Speedi wear sleeves to the flanges on which the seals run. One of them looks completely unmarked, but the other one does show a slight wear mark. I left them alone, but did fit new shaft seals: not that the old ones looks at all worn.
As I write, I realise that what I have not done, I have never done ~ and maybe I should, is to have put some sealant on the flange splines. I saw a comment on Aussiefogs that oil can leak out that way, but I have not seen evidence of oil at the flange nuts.

There was evidence, though, of oil leaking from the gearbox into the clutch housing via the

Facing page: The black, and the original silver cam followers. Top: The Jack Weaver Plate as it was delivered.
Bottom: The Plate after it had been trimmed.

## Totally Traction

input shaft．This only has a laby－ rinth seal．I see later gearboxes have a breather，whereas this labyrinth seal is the only path for air to escape on the Trac－ tion gearbox．
So，will it leak？A day after fill－ ing the gearbox，the bottom of the gasketed joint felt damp．I tightened the nuts as much as I dare and we＇ll see what hap－ pens．
Before I fitted the gearbox，I added a Jack Weaver plate．This is a 3 mm thick steel strength－ ening plate developed by New Zealander Jack Weaver，who raced Traction－based specials in the＇50s and＇60s．It braces the two bearings supporting the differential against each oth

er．The reaction of the pinion against the crown wheel tends to push these bearings apart．In extreme situations～ie when the second gear bush seizes，or some other trauma occurs～ the bearing supports can break， if you are lucky．If you are not lucky，the gearbox casing splits． For some reason that is beyond me，the plate is oversize．The instructions［in Dutch］suggest you may need to file off some aluminium from the bellhousing． But the amount of metal you would have to remove seems too much，so I took metal off the steel plate as well as a little off the bellhousing．I have read that some people even remove a couple of the studs that at－ tached the gearbox to the bell－ housing to give room for the plate．
The bellhousing attaches to the ID engine block exactly as it does to a Perfo～except at the bottom．The Perfo uses a pair of triangular braces that stiffen the bellhousing－engine block structure．I was about to fit these to the bottom of the ID block but found that this job is done by the ID＇s cast sump． The holes are in the same place ［that＇s good］but they are a dif－ ferent size．Instead of 10 mm clearance holes，the sump has M7 tapped holes．Suitable bolts have just arrived from West－
The Jack Weaver Plate fitted．
field Fasteners who，together with Accu and Boltworld，have proved very useful sources of bolts，washers and keys．
What＇s left to do to get the car going？
A Fit those bolts．
AReconnect the gear linkage ～the gear lever has become dislocated behind the dash and needs resetting．
人 Refit the rubber block at the back of the engine and set the engine height．
A Connect the distributor to the coil．
全 Fill the engine with oil and wa－ ter～I really must not forget to do that．
A Reconnect the headlamp wir－ ing．
人 Reconnect the speedo cable．
A Reassemble the top swivel which needed to be broken to allow the drive shaft to get out of the way of the gearbox．
A Reconnect the alternator wir－
ing and the battery．
人 Start it up and set the timing．

ARefit the grille，bonnet and bumper and wipe a lot of greasy marks of everything．
The remains of the old engine were sitting in front of the car， getting in the way．Now that it has yielded all the parts that needed to be transferred to its successor，I have made a trol－ ley on which it now sits upside down．When I have got the car going I will wheel it to the back of the garage and forget about it，until I have done some other things．I will then take it apart and decide what to do with it． My inclination is to rebuild it，but it has to await its turn behind the gearbox and driveshafts．
Next month，when［not if］ the car is running，and I can call this project complete I＇ll tell how it runs and I will give a complete list of the points you have to worry about if you want to fit an ID engine block in place of a Perfo block in your beloved Traction．
Chris Bailey

## Cccy chub Alvice Line

Traction Avant
Ted Cross
2CV
Dave Rogers $\quad 90422229484$

CX／C5
Graeme McDonald 0409 ｜ 34836 SM
Lee Scholte 0407 ｜ 50038
Xantia／Xsara
John Wyers
97876280
XM and modern models
Salman Chaudhry 04I0 040505 C2／C3
Don Scutt
98078999
C6
John Fedorko 0438597384

Papybus Omnibus III

its two-letter acronym-ed DS/ Déesse/Goddess to a wideeyed public at the 1955 Paris SaIon de L'Automobile. Then the follow-up shortly afterwards, with a new idea, when a simplified version of the Déesse became the... ID.
Quelle bonne... idée
Did you hear the one about the Ami 6, amis australiens? During a Sunday arvo conversation last November at French Car Day in Kalamunda Western Australia, I heard Thomas and Frédérique, the charming couple from Perth's Alliance Française cultural centre, ask my old pal Ralph Hibble if it was true that Citroën in 1961, with an eye to exporting the about-to-be launched Ami 6 to the growing, unsuspecting American ladydriver market, had called its latest création... La Missis. Ralph gave his characteristic WestAussie laugh, and showed them his own création : a home-built aluminium-and-yellow electric 2CV roadster.
II AMNESIA AMPERICANA
Well, one morning last week, Papybus refused to crank: just a groan and a quintet of clicking from the doorlocks and jangly warning-gong sounds from the dash.

Last time this happened was
Ralph's Aussie ingenuity is admired by Thomas and Frédérique from l'Alliance Française de Perth.

## Papybus Omnibus III

during the pandemic. It was the battery. I had to print off a special permit allowing me to drive into Chantonnay in the Deuche to pick up a new one. On the way home, I was flagged down at the Mouchamps crossroads by a bored and solitary middleaged gendarme who, by the sound of his accent, had been transferred from Marseille. He inspected my permit, the battery receipt, Mogette's tyres and did a half-hearted Inspec teur Clouseau salute prior to waving me into the non-existent traffic.
This time, there was no need for a permit. I was almost sure it was the battery again. Although electrical faults on Papybuses are far from unknown... La C8 vénérable has taken to randomly forgetting to switch to «overnight/économie électrique» mode during recent months. I suspected this may have been allowing the battery to discharge. At first, I labelled this as post-400,000km mechanical dementia ; another sign of advancing age. Just like when the gearknob broke into three pieces two weeks ago and had to be re-constructed using Sikaflex. Then I decided, out of kindness, to downgrade the electrical diagnosis to amnesia. And anyway, maybe it was sim ply the battery.
III PILGRIM TRAIL REVISITED
I resolved last Friday, while


In April Vendée, marsh orchids take over from primroses.
the charger was doing its work, to visit Voisin Vendéen Yvonnick and consult about the battery theory.
As I walked up the lane out of Les Roblinières, joined the walkway which skirts the hedgerow below the top meadow, then headed towards the 1669 windmill, I had a premonition that Yvonnick would confirm the battery fault, and that at least one «s sigle » would creep into conversations before lunch-

time.
It takes less than half an hour to walk from our hamlet to Yvonnick's ; longer if you pause to take in the burgeoning April flora and listen out for a cuckoo, an oriole or the woop woop woop of a hoopoe.
After the windmill, the track segues into a 500 metre segment of an ancient «chemin creux », literally a «Hollow Way », which takes the walker to La Joussière. Well, almost.

A section of this thousand-year-old track was bulldozed in the 1980s, and replaced with a «chemin de remembrement », wider and treeless, allowing for the passage of modern farming machinery. Had they known at the time, Midnight Oil could have penned a lament about the disappearance of the characteristic pollarded oaks known as « têtards 》.
The better news is that these days, with state financial incentives given to landowners to plant new hedgerows, more lanes are once again becoming tree lined. Perhaps our greatgrandchildren will one day embrace one of these oaks and stretch their arms, unable to clasp their hands on the opposite side of its trunk.
I arrive at Annie and Yvonnick's house and look along their driveway. Yvonnick's lower half is leaning against his 1953 black and café-au-lait Traction. His upper half is ensconced under the bonnet. The battery is next to his foot. Even from twenty metres, I can hear him softly swearing in Vendée patois. know that, as soon as I indicate my presence, he will switch to his Scots-accented English to make the most of this weekly opportunity for language practice.
A golden oriole calls from the budding branches of a poplar tree down on the banks of Le

brrricht gooid morrnin to ye! » He says, holding a red battery cable in one hand, and rubbing the emerging lump on back of his bald patch through his Breton sailing cap with the other.
He points to their friend's Hyundai hybrid parked next to the Traction.
«Frrrom six volts to eight hundrrred in just seventy yearrs! »
He roars with laughter, and rubs the back of his head again. I tell him that I have come to seek his opinion about the Papybus refusal to crank.
«HaHa, mon ami. Les Batterrries. They don't make them like they used to. My Trraction battery is twenty years old. Lucky to get thrree our four yearrs out of one these days. Let us Yvonnick and his black and ccafé-au-lait Traction. Hyundai and Traction
Ruisseau du Parc. I spot it, flitting like a flying banana to the next peuplier. It is rare to see this notoriously shy bird, especially once the poplars are fully-leaved. I utter an audible «Waaaouh ». Yvonnick straightens up, forgetting the Traction's opened bonnet, but remembering to side-step the battery.
IV BATTERIES, THEN AND NOW
«HaHa Misterr Brrown! A

sit for a mo ment and.. rrreflect on your prroblème ».
Our conversation continues on the two chairs of their porch. Annie brings out two cups of her excellent coffee. We discuss world events and the worrying situations in Eastern Europe and the Middle East. The oriole punctuates our paragraphs, with a timeless call which seems to state: «l'm an ori-ole.»
For the most part, we forget to talk about batteries. When we do, it is not to discuss Papybus's present problem, but to exchange thoughts about the notion of « disposable electric cars »>. Yvonnick's friend had recently been informed that his ten-year-old Renault Zoe was worth less than the cost of a replacement battery pack.
$\checkmark$ PASSING PILGRIMS
As we finish our coffees, two tall grey-haired walkers smile and wave from the lane at the end of the drive. The scallop shell which hangs from the gentleman's backpack is a giveaway sign of their status. The lady is wearing an orange headscarf.
«Pilgrrims, mon ami. Walking the Vendée Camino. Judging from the lady's orange headscarf, I'm guessing they are from Holland. You know, we are
seeing morre and morre pilgrims in the lane since we did
that rresearch last year ( about the ancient rroute which came through La Joussière. »

He goes on to explain that one of the long-distance pilgrim trails leading from Le Mont Michel
to Santiago de Compostella in Western Spain passes north to south through central Vendée. He reminds me of the bench over in Mouchamps, four kilometres away, with its plaque indicating the $1,397 \mathrm{kms}$ of route remaining.
«But you know, the rreal rroute prrobably passed not through Mouchamps, but through the chemin creux, the hollow way, at the end of our garrden, because here the rriver is easier to crross »>.
My host suggests that we walk past their flowering irises, through their veggie plots, past the donkey paddock and across to the two lines of ancient oaks which form a natural boundary with their neighbours. The edge of their property is a natural granite ridge. The short walk between our two villages takes you from limestone bed-

## Papybus Omnibus III


rock to the harder, colder substrates. From our vantage point we look down into the chemin creux which follows a natural faultline in the rock. Centuries of passage of ox-carts, livestock, locals and others have eroded the softer layers, and the canopy of oaks has transformed the track into a tunnel.
We stand in quiet contemplation. I imagine a footsore pilgrim, perhaps in the early 13th century, stout « bourdon » staff
 $\square$
in hand and water gourd tied to his belt, pushing on towards Santiago.
I share the image, verbally and en anglais, with my companion. VI ElÉONORE, ELEANOR, ALIÉNOR
«Indeed, cher ami. At the time of Eléonore d'Aquitaine, these pilgrim ways may have existed already ! Eight hundrred yearrs ago and more... >

I mention that I seem to recall that Eléonore had been Queen of France and Queen of England ~ as Eleanor ~ at various times.
Yvonnick embellishes my recollection with his encyclopaedic knowledge, lapsing into French with the excitement
« Oui, oui mon ami. You know her birth name was Aliénor. This year, 2024, is the 900th anniverrsary of her birth. Queen consort of Frrance frrom II37 to II52, as wife of Louis VII. Then Queen consort of Angleterre from II54 until the death of her second husband, Henry II of England in II 89 ! Such a powerful woman! Mother of Rrichard Coeur de Lion! »
He notes my admiration of his
factual memory, and continues: « She died not far from here in 1204, at Abbey of Fontevraud up near where the Loire and Vi enne rivers merge. Her tomb is
still there. Did you know that enne rivers merge. Her tomb is
still there. Did you know that there is a legend that wine of Sainte-Cécile, from the vineyards at the end of this lane, was


son-in-law chose to call our grand-daughter... Eleanor.
interior.
Yvonnick returns, opens the
suicide door and sits behind the spelled the English way, also! »
VII AN APPROPRIATE ACRONYM
Back in front of the house, we fit the 6 -volt re-charged battery, and the Traction fires up first time. With its I,9IIcc engine purring on tickover, Yvonnick leaves me sitting in the passenger seat while he goes to look for something in the kitch en. I take the time to admire the elegance of the ivory-faced speedometer, and to absorb the flat-floored comfort of this

steering wheel.
« Well, we have talked of historry and pilgrim trails, of wine of Citroëns and of stone ; now let us talk of trrees... I saw you admiring those oak trrees, mon ami. And I know you will have spotted those rremnant têtard trees on your walk here this morrning; l am a member of a tree-preservation association and we are concerrned about the status of trrees in Vendée. 》
Over the next ten minutes, and with the Traction's motor still gently ticking, he explains that Vendée languishes near the bottom of the national league tables with regard to preservation of hedgerows and forests : just 6\% of Vendée is given over to woodland
He gives me a friendly rundown of the objectives of his association, one of which is to create a national database of « arbres remarquables », trees of special botanical or historical interest which need to be protected for posterity. He shows me that there are already more than 500 trees listed across France.
I am spellbound by his knowledge and his communication skills.
I know there will be an acronym/sigle moment when ask him the name of the association. His reply comes with a knowing smile :
«Arbres Remarquables- Bi -
lan-Recherche-Etudes-Sauvegarde »
I smile back, as he switches off the engine.
«A.R.B.R.E.S... »
I gently imitate his FrancoScottish brogue
«Rrolls off the tongue, rreally... »
As we walk away from the Traction and past the kitchen door, he spots the clock behind the dining-table, and suggests we pause for a glass of crisp Muscadet before lunch.
I look back down the drive, admiring his Traction once more.
«Ha Ha, sacré électronique! We neverr had electronic problems in 1953! I think for your Papybus, you should start by changing the battery ; perrhaps it is some complicated fault, but look for simple solutions firrst! Bon courage, cher ami. »>

After the Muscadet, on the



ChiBOEN Classic ownvais
CLUB OF AUSTBALIA
Australla's National Citroẻn car Club

