CITROËN CLASSIC OWNERS CLUB OF AUSTRALIA

FRONT DRIVE

Incorporating THE NEWSLETTER

Australia's National Magazine
for Citroën Owners and Enthusiasts

CITROËN CLASSIC OWNERS' CLUB OF AUSTRALIA
Australia's National Citroën Car Club

October/November 2024 Vol 48 No 4

Dyanissima &
Jacques Hinstin: The Man in the Shadows

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0411 869 705 [H]

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
Jack Weaver	1991
Peter Boyle	2003
Ted Cross	2012
Rob Little	2012
Sue Bryant	2017
Brian and Esther Wade	2017
Leigh Miles	2022
Lance Wearne	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, 1 Wood St., Hawthorn [cnr Denham St.]

CCCV Meetings

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 at 8/41 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, Tools & Shop

Contact Max Lewis. Phone: 0458 993 771 [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
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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.au
Tas	www.citroentas.org

Contents

Cover Image

The cover image shows a Dyanissima undertaking a slalom test as part of its review in Quattroroute in 1968.

Contributors

Contributors to this edition of 'Front Drive' include Chris Bailey, Paul Blank, Malcolm Bobbitt, Phil Chidlow, Graeme Dennes, Glenn Drake, Jérémy Krok, Ian Macdermott and Wojtek Maleczek.

Deadline

The deadline for the next edition of 'démarreur' it is Sunday, 27 October and for 'Front Drive' it is Friday, 15 November

Ed Sed

This edition was planned to celebrate the 75th Anniversary of the launch of the 2CV van. As always, I went in search of suitable material for such an issue. A prime source, I thought, would be our friends at 2CV GB. Surely they would be making a fuss about such a milestone.

Indeed they are. Next year. When the 75th anniversary actually occurs. Ooops.

Never fear, you will still get your fix of A-Series cars this month, as planned.

Did you know that the 602cc engined Dyane was marketed as the 'Dyanissima' in Italy? It was news to me. I learnt that from 2CV GB. This edition, I have an extensive road test of the Dyanissima from 1968. I believe this is the first time it has appeared in English, anywhere.

Graeme Dennes is here with advice on making your 2CV [and I guess Dyane, as well] taillights brighter. Graeme has previously written about improving the headlights on your 2CV and links to that article are in this edition. Remember, almost all the technical articles that CCOCA has printed are available on the Club's website:
https://citroenclassic.org.au/wordpress/technical-articles-library/

CCOCA Tech History

Tractionists have not been forgotten either. Chris Bailey is with us with Totally Traction and Ian Macdermott shares his advice on the correct adjustment of Traction brakes.

Until I read Malcolm Bobbitt's well-researched article, I had no idea how important Jacques Hinstin was in French automotive circles. A true pioneer. And one who put his support behind, and extensive engineering expertise at the disposal of, André Citroën. A fine example of Le Patron standing on the shoulders of a giant.

The news that Citroën is shutting the garage doors locally has finally sunk in. This month, we have an international view on this from Jérémy Krok. Jérémy runs the Passionément Citroën website and is very well-connected into Stellantis. We also have the views of one of our members from Perth. It is easy to lay the blame for the brand's demise solely at the feet of Inchcape, but the international perspective sheds a very different light on the matter.

While I am depressing you with Citroën's closure, I must also remind you that the Citroën Conservatoire has closed. But we have a report from CCCV member Glenn Drake about his visit there in 2023.

Something for everyone? I hope so.

Enjoy,
Leigh F Miles ~ Editor

Citroëning

Club Permit applications to VicRoads must be accompanied 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.

CCOCA Prez Sez

The AFL Football season has ended, and the weather is on the improve. CCOCA has some great events coming up before Christmas.

Helen and I are about to depart for the Sunshine Coast in sunny Queensland to join the local 'King's Birthday' celebrations in Gayndah with the CCCQ club, and to enjoy the Huth family's hospitality. It will be a feast of Citroëns for us.

I have been pushing on with my Dyane project recently, and thanks to Peter Fosselius, it has a restored braking system once again. I had the car painted during COVID, so the proper order of re-building my Dyane was inverted, which is a complication, but Peter has been able to sort it out for me this week. He and Lorraine will be back home in South Australia soon, and ready for local work there. If you need Peter's expertise, you will need to book in with him earlier rather than later ~ his next road trip will most probably be in early 2025.

Talking of Dyanes, I never knew that in Italy, only the 425cc Dyane was called that. The 602cc version was called the Dyanissima. Where Leigh manages to find these obscure Citroën gems is a never-ending source of wonder.

Many thanks to our recent group of new members. Welcome to CCOCA, and I hope to meet up with as many of you as I can over the coming summer months.

If you are in, or close to, Melbourne, the French Car Festival is being hosted by the Renault Car Club of Victoria this year, on October 27, and I encourage you to come along and support the day, if you can. Details in your magazine or on the club website. We will be there.

Finally, I want to remind you [as if you need reminding] that Christmas is not far away. The Club's traditional Christmas event, shared with our CCCV friends, is scheduled for Sunday, December 15. Keep the date free and catch up on some festive spirit. Full details in the next magazine.

Ted Cross ~ President, CCOCA

CCCV President's Report

The AGM is only a couple of weeks away, and I really encourage all of you to come. The club is putting on a BBQ before the official meeting which is always a hit. This year we find ourselves in need of a secretary. Ian has done a great job in this position over the last 12 months but has decided not to put himself forward for the next year. The secretary's position is not an onerous one, consisting mainly of taking and distributing the minutes of each committee meeting. The meetings alternate each month between online and one of the committee member's houses, which always turn into a fun night out.

The rest of the committee are re-nominating for their current positions, but if you or anyone you know would like to join the committee, then please send an email to president@citcarclubvic.org.au or fill out the proxy/nomination form in the AGM docs on our website.

Also on the horizon for October is the French Car Festival on the 27th. This year it is being organised by the Renault Car Club and held at Woodlands Historic Park. This is 'The Day' for celebrating French cars and it would be great to see as many Citroëns there as possible, particularly given the brand's current precarious position.

Motors and Masterpieces in November is being organised by the same team who set up Motorclassica. Given the success that event previously enjoyed, I'm sure it will not disappoint. This year will feature a display of Citroëns organised by the Club; so head down to the Melbourne Showgrounds.

The final big event for this year will be the Club's annual Christmas BBQ and picnic. Because our usual venue of Frog Hollow has turned into a construction site, we have decided to hold this year's picnic at the clubrooms. Registrations are essential and the details will go up onto the club website soon. That's all from me until the next one.

Michael Faulks ~ President, CCCV

International A-Tractions

25th World Meeting of 2CV Friends

WHEN: Tuesday, 29 July to Sunday, 3 August, 2025
TIME: All day
WHERE: Vipana, Slovenia
COST: Prices start from €100
REGISTRATION: Essential registration@2cv2025.si
MORE INFO: info@2cv2025.si

You can register/book via the Friends Meeting website: https://2cv2025.si/registration/

2CV SLOVENIA BOOKING

Over 400 vehicles have already booked for the 2025 2cv Friends meeting. Attendees from Germany, France, the Netherlands and Belgium topping the list. There are even two from the US. At this stage, no-one from Australia has booked. Why not make this meeting the centrepiece of your 2025 European holiday?

CCCV Noticeboard

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	0438 155 797
Western Suburbs	
Ferdi Saliba	0409 384 977
Glen Iris	
Colin Bates	9822 2864
Ringwood	
Wolfgang Siem	0425 872 082
Somerville	
John Parsons	0407 045 388
Ashburton	
Robert Belcourt	0439 798 079
Shepparton	
Rob Little	0419 581 622
Warrnambool	
Roger Wilkinson	0427 115 224
Hurstbridge	
Adelino de Silva	0419 886 480

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.

A-Tractions

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-Citroën Events Look Like This

October

CCCV October Meeting: AGM & BBQ

WHEN: Thursday, 17 October
TIME: From 19:30
WHERE: CCCV Club Rooms, 8/41 Norcal Rd., Nunawading
COST: Free
REGISTRATION: Essential for catering by 15 October Call or email Michael Faulks
BRING: A willingness to participate
MORE INFO: Michael Faulks, 0432 537 060 president@citcarclubvic.org.au

Yes, it is that time of the year again ~ the Annual General Meeting is rolling around. The evening will kick-off with a BBQ, which will start at 19:30. The agm will follow on straight afterwards.
Those wishing to attend will need to RSVP for catering.
Annual General Meetings have a reputation for being boring, but this year it will be especially streamlined because all the Committee Reports have been published in the last edition of 'démarreur'. So no need to sit

A-Tractions

and listen to the Committee drone on. Questions from the floor are, of course, encouraged!
Every year, the Committee exhorts you to come along to this important event, and every year, we manage to have sufficient members attend to assure us of a quorum. Remember, if we do not get a quorum, we simply have to go through the whole thing again. So, please make the effort to come along.
VOLUNTEER!

Have you thought of standing for Committee?
All Committee positions are 'up for grabs'. A link to the Nomination Form will be sent to you shortly.
The Club can only continue to prosper if the members take up the challenge of making the Club what you want it to be.

VOTE!
Voting for the 2024/2025 Committee is a very important right you have as a member of CCCV. So, come along and make sure you have your input.
PROXY FORM
If you cannot come on the night, be sure to complete a proxy form which you can find it here:
https://forms.gle/YZDCeA-5IQrnoNUo1A
CCCV PROXY FORM

CCOCA October Monthly Meeting: Guest Speaker: Robin Bowles

WHEN: Wednesday, 23 October
TIME: From 19:30
WHERE: Hawthorn Bowling Club, 1 Wood St., Hawthorn [cnr Denham St.]
COST: Free
REGISTRATION: Essential for catering by 18 October
Note: CCOCA will have exclusive registration rights until Wednesday, 18 September
BRING: A good listening ear
MORE INFO: Helen Cross, crossfam@ozemail.com.au 041 935 69 63

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

A special evening of sleuthing,

speculating and solving 'The Deaths in the High Country'.
The verdict is in, but the pilot still sits in remand, awaiting his fate.
Was it murder, or mishap? Everyone has a theory, but what really happened?
Robin Bowles, known as Australia's True Crime Queen, has just completed her fifteenth book investigating, this highly controversial case, which has had more tongues wagging than the 'Mushroom Lady'!
AND,
as arranged by your CCOCA member, Helen Cross, who met Robin at Dargo on one of her sleuthing expeditions, Robin will be our guest speaker, sharing her almost three-year journey writing the case, digging behind the scenes and answering questions.'
Those who are interested may also purchase an exclusive, discounted, signed copy of Robin's book 'Last Man Standing'

All French Car Day

WHEN: Sunday, 27 October
TIME: Participating cars from 08:00
WHERE: 'Living Legends', Woodlands Historic Park, Woodlands Dve., Greenvale
COST: Participating cars: $10
Visitors: Free
REGISTRATION: Not required
BRING: A picnic and your camera
MORE INFO:

A-Tractions

Drew Valentine
Renault Car Club of Victoria
vpr@valentinepr.com.au

'Living Legends' at Woodlands Historic Park is the home of equine thoroughbreds. All other French thoroughbreds are welcome! Think Citroën, DS, Renault, Peugeot, Alpine, Simca, Delage, Amilcar, Panhard and Bugatti. Whether new or older, this year they can become a legend. Bring your French automotive beauty and let it shine at our annual spectacular display of all things French automotive. This year at beautiful, historic Woodlands Park.

- Concours judging for each Club
- Merchandise for sale
- Coffee van
- BYO picnic
- Historic homestead and grounds
- Cycling and walking trails
- Cafe and food available at the homestead

November

CCCV November Dinner Meeting

WHEN: Thursday, 21 November
TIME: From 18:45
WHERE: The Elsternwick Hotel, 259 Brighton Rd., Elwood.
COST: Food and refreshments to your account
REGISTRATION: Essential, by Monday, 18 November. Text or email Michael Faulks
BRING: Hunger and a thirst
MORE INFO: Michael Faulks, 0432 537 060
president@citcarclubvic.org.au

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

A-Tractions

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 south, to Elwood.

The Elsternwick's Bistro provides a family friendly environment specialising in delicious food and quality service.

Inspired by their surroundings and Victorian producers, they believe in sourcing locally and sustainably. The menu has something for everyone, including fresh seafood, steaks, pastas, salads and all the pub classics you know and love. They have a dedicated menu for youngest guests to keep everyone happy.

Motors & Masterpieces

WHEN: Friday, November 22 to Sunday, November 24
TIME: 10:00 to 17:00
WHERE: Melbourne Showgrounds, Epsom Road, Ascot Vale
COST: Adult Day Pass: $59
Child [12–16]: $29
REGISTRATION: Tickets available now
BRING: Your camera
MORE INFO: Ian Downie, blueduck1949@gmail.com
https://www.motorsandmasterpieces.com/

MOTORS&MASTERPIECES

DO NOT CALL IAN TO BOOK! You must register/book via the Motors&Masterpieces website.

Our Clubs have been approached to nominate up to ten cars to be part of the this excellent display. So, you can be sure of seeing some of the Victorian-based Citroëns all in one place.

The event will be choreographed around ten themes that reflect the most relevant cultural settings and evolutionary milestones of the motoring industry since the beginning of the last century. Concours and display cars and motorcycles will be integrated into one of these ten themes according to place of origin and period. The organisers hope that this approach will result in a more engaging and entertaining experience for all participants and the public.

- La Dolce Vita
- Swinging London
- California Dreaming
- Tokyo Lights
- Great Southern Land

- Golden Age
- High Society
- Continental Classics
- Monaco Glitz
- Chequered Flag.
- You can enter your car [at no cost] to be displayed via the website and if your car is accepted you will receive two weekend tickets.
- Entry to the Concours, also via the website, costs $200, and if your car is accepted for the competition you will receive two weekend tickets.

CCOCA November Monthly Meeting

WHEN: Wednesday, 27 November
TIME: From 19:30
WHERE: Hawthorn Bowling Club, 1 Wood St., Hawthorn [cnr Denham St.]
COST: Free
REGISTRATION: Essential for catering by 25 November
MORE INFO: Lee Dennes, activities@citroenclassic.org.au

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

NOVEMBER MEETING BOOKING

Come along and enjoy the warmth of the company of other Citroënists at the Club's November meeting. Max will be there with a large selection of books from the Club's library, all of them available to borrow. Remember, you can browse almost the entire collection of books in the Club's library by going onto the Club's website. We own a huge resource, which is there for your benefit and enjoyment. Check it out at https://citroenclassic.org.au/wordpress/library/

CLUB LIBRARY

After you have checked out what you might like to borrow, give Max a call and he will make sure it is there for you to borrow at the meeting.

Further event details will be available closer to the date. Keep you eyes peeled for Lee Dennes' email.

A-Tractions

Chit Chat Tuesday

WHEN: 1st Tuesday
5 November
2 December
7 January, '25
TIME: 10:00
WHERE: Laneway Espresso Café, Dromana
COST: Cheap Eats
BOOKING: Not required
CONTACT: Warwick Spinaze 0407 016 719.

Laneway Espresso Café ~ next door to the Dromana Hotel, 167 Nepean H'way, Dromana. Easy to find, plenty of parking, under-cover seating if the weather is wet. This is a low key 'DIY' event for like minded Citroën owners to meet and chat.

Cit-In 2025

WHEN: Friday 2 to Monday, 5 May, 2025
TIME: From 15:00 on May 2
WHERE: Maryborough, Qld
COST: 1 August to 1 February, 2025: Adults $370, aged 5–12: $125
After 1 February: Adults $400, aged 5–12: $150
REGISTRATION: Essential. Registrations open in July, 2024.
MORE INFO: cit-in25.citroen-clubqld.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 5CV. It is also the 70th anniversary of the legendary DS, launched in Paris 1955.

Maryborough is three hours north of Brisbane and is rich in history, boasting 1800s architecture and 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, 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

Venue
Brolga Theatre & Convention Centre, 5 Walker Street, Maryborough.
Events will be based here unless stated otherwise.

Friday 2 May 2025
- Arrival 3pm to 6pm
- 6pm Welcome BBQ

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

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, Heritage and Reef. Lunch provided.
- Formal Dinner: Theme ~ Bring to life the glamour of Paris 1955. The year of the launch of the Goddess.

Monday 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.

On the website, you can sign up to receive email newsletters 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. You can opt out at any time.

Accommodation

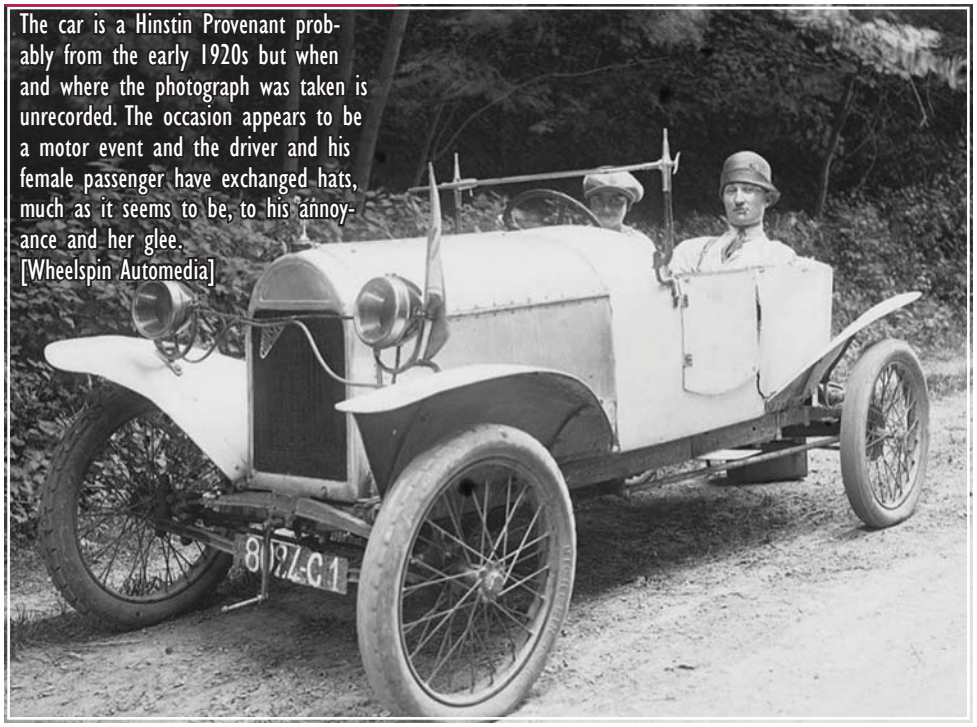
Find the list of Maryborough hotels, caravanning and camping options on the CCCQ website or at www.visitfrasercoast.com

FRASERCOAST WEBSITE

Jacques Hinstin: In the Shadows

From an early age, André Citroën had an eye for business, an attribute he had inherited from his forebears, and with this characteristic he developed a trait which made him an effective communicator and an acclaimed self-publicist. These qualities were evident in his schooling, initially at the Lycée Condorcet and later the École Polytechnique where he not only made long standing friendships but also nurtured his engineering expertise and commercial penchant.

André Citroën's friendship with Jacques Hinstin, which was founded at the Lycée Condorcet, continued beyond the former's post-École Polytechnique and French National Service era, by which time the latter was brought into Citroën's gear-making business. The production of gear wheels using the 'herringbone' configuration rather than the familiar simple straight-cut type, the design of which gave rise to the now accustomed Double Chevron insignia to be found on Citroën vehicles, emanated from 1900 when André Citroën visited his sister, who was living in Poland. Accompanying his brother-in-law on a business trip to a small engineering concern between Warsaw and Łodz, he was surprised to see gear wheels being cast in iron from patterns carved from wood. It immediately occurred to Citroën that such gear patterns afforded greater efficiency than that of the rudimentary type, especially when used in heavy industry applications. However, he realised that the engineering of the herringbone gear wheels was particularly complex, which was why the system had not been commercially developed.



The car is a Hinstin Provenant probably from the early 1920s but when and where the photograph was taken is unrecorded. The occasion appears to be a motor event and the driver and his female passenger have exchanged hats, much as it seems to be, to his annoyance and her glee. [Wheelspin Automedia]

Arranging to acquire the licensing rights to produce the double chevron pattern gear wheels, Citroën hurried back to Paris where, once he had completed his National Service, he set up business manufacturing his gears. A call to Jacques Hinstin, whose parents owned a large engineering company in Paris, resulted in him securing workshop premises at Essones in the city's suburbs. Such was the importance of Jacques Hinstin's friendship with Citroën, together with his impressive engineering prowess, that the gear company was registered as Citroën, Hinstin et Cie.

For readers new to this magazine a far more extensive review of André Citroën's gear manufacturing can be found in 'démarreur', March 2024 [Vol 4, No 5] and 'Front Drive', April/May, 2024 [Vol 48, No 1]. Both these editions can be found on the CCOCA website. Ed.

https://citroenclassic.org.au/wordpress/wp-content/uploads/2024/03/demarreur-Volume-4-No-5-March-2024-.pdf

DÉMARREUR, V4, NO5

https://citroenclassic.org.au/wordpress/wp-content/uploads/2024/03/Volume-48-No-1-April-May-2024.pdf

FRONT DRIVE, V48, NO1

Léon Jacques Hinstin [he never used Léon as his first name] was born on May 10, 1873 in the Île-de-France, the son of Charles Edmond and Ida Hinstin and was five years older than André Citroën. He was occupied in the production of automobiles before Citroën, and in their gear-making days Hinstin was closely involved with the establishment of the Sizaire et Naudin company, and accordingly arranged for André Citroën to supply 500 engines to the fledgling motor manufacturer.

Before World War I Hinstin was the Paris agent for the Grégoire, the company having been formed in 1904 although its origins are traceable to 1899. It must be emphasised that the Grégoire was nothing to do with Jean Albert Grégoire [born 1899], who was noted for his work pioneering front-wheel drive and influencing Panhard in developing the Dyna, its small

Jacques Hinstin: In the Shadows

post-World War II car. Prior to the Great War, Grégoires were highly regarded for their quality and sporting style which attracted an affluent clientele. In 1920 Grégoire, then owned by the Forges et Ateliers de la Fournaise [which assembled the 17CV Bignan which was sold on the British market as the Grégoire-Campbell], returned to business with a 15hp car before developing a 1,098cc light car, the construction of which was entrusted to Jacques Hinstin. Though the car was sold in France as the Grégoire, it was available in Britain as the Little Greg as well as the Gamage when offered by Gamages, the [Holborn] London department store.

Hinstin's experience in building the Grégoire influenced him to manufacture ~ or rather assemble ~ light cars under his own name. The first of these was based upon the design of the Grégoire light car and featured a proprietary two-bearing 1.1-litre, four-cylinder engine supplied by the likes of C.I.M.E. and Ruby.

In the wake of World War I, light cars ~ and cyclecars ~ proved popular in France and Britain, and in France a number of constructors could be found in the Paris suburbs, particularly at Asnières, Courbevoie and Levallois. The last, incidentally, became known as 'the motor suburb' owing to it being home to a large number of embryo car makers, many of them surviving for only a brief period. Jacques Hinstin, registering his business as SA des Éts Jacques Hinstin, was, however, based in the north-east of France in the Ardennes at Maubeuge, only a few kilometres from the Belgian border.

Before Jacques Hinstin designed and built his own cars he was the Paris agent for Grégoire, one of the models he sold being a sports model as depicted here. Jacques Hinstin is seen behind the wheel and his passenger is the journalist Maurice Penaud. [MB collection]

It was not only engines that Hinstin bought in: lightweight chassis were sourced from Paquis or Arbel; Malicet et Blin supplied gearboxes; brakes were sought from Perrot while Lemaître et Gérrard provided axles. When Hinstin decided to produce a lightweight car in greater numbers than previously, he did not have the manufacturing resources to achieve this. He subsequently contracted SUP [Société des Usines du Paquis], based nearby at Consla-Granville, to construct the vehicles on his behalf.

The Société des Usines du Paquis began business around 1905, although it was not officially established until 1908. Operated by the Hainon family, SUP quickly emerged as a prime force in the automotive industry supplying chassis frames and other components to some well-known car makers including Delaunay-Belleville, Peugeot and Lorraine-Dietrich. Additionally they built engines for the Le Zèbre company in a factory at Asnières. The connection here is that Jules Salomon who designed the Le Zèbre was instrumental in the design of André Citroën's Type A of 1919.

Following the cessation of hostilities, Albert Hainon decided that SUP should build complete cars, using both the SUP and Guilick names; the latter's factory was located near Hinstin's works at Maubeuge.

Jacques Hinstin ordered 700 cars from SUP; a seemingly optimistic number which nevertheless sold remarkably quickly. Their 1,098cc four-cylinder engines gave the car reasonable performance and helped it achieve some success in motorsport events at Le Mans and elsewhere. The cars continued to be sold until early 1924, after which a number of SUP personnel joined Hinstin at Maubeuge to produce a new sporting Hinstin. More substantial than the SUP, it featured a lowered chassis and a pointed tail, sports body. The venture appears to be short lived and production ceased in 1928.

Jacques Hinstin became an intrinsic part of Automobiles Citroën post-1919 when, having introduced André Citroën to Adolphe Kégresse, he and Kégresse were, in 1920, engaged in establishing the 'Half Track' department at Javel. In addition to this facility, Adolphe Kégresse and Jacques Hinstin had a Kégresse machine shop

Jacques Hinstin: In the Shadows

elsewhere in Paris; a discreet location at 53 Rue Balard. The development of Citroën's cross-country vehicles was centred on these two premises. The vehicles were being designed for use in a number of agricultural and industrial operations in addition to their being employed in the now legendary [expedition] 'Raids' across the Sahara, through Africa and crossing the Himalayas.

Hinstin's work with Kégresse, summoning the Kégresse-Hinstin half-track for military purposes, was influential in perfecting the bogies pivoted on the rear axle. Moreover, with Hinstin assisting Kégresse with the design of a supple caterpillar suitable for cars, the Citroën-Kégresse proved to be highly successful. Ultimately Citroën-Kégresse vehicles were built at Levallois in the former Adolphe Clément bicycle factory which André Citroën acquired in the 1920s in order to expand his motor vehicle production. In addition to the Kégresse system being employed on Citroéns, it was also licensed to a number of marques including Alfa Romeo, Burford, Crossley, FN, Renault, Schneider and Unic.

A starring role for the Hinstin-Kégresse Citroën in the early 1920s when filming 'La Terreur'. Jacques Hinstin was present during some of the filming and he is seen second right [with hand on the steering wheel] to the actress Pear White. [MB collection]

Despite Jacque Hinstin's engineering expertise and his wide involvement with the French motor industry, not least his association with Citroën, the late John Bolster, who was an authority on French cars, was dismissive of the Hinstin marque, claiming it to be 'almost anonymous'. When mentioning the later models built by Hinstin at his own works, he unkindly referred to them as being 'cheap and nasty.' Bolster's indifference is surprising since Jacques Hinstin was a highly acclaimed and gifted engineer, and one with much more than mere passing experience in the design and construction of gear wheels and motor vehicles.

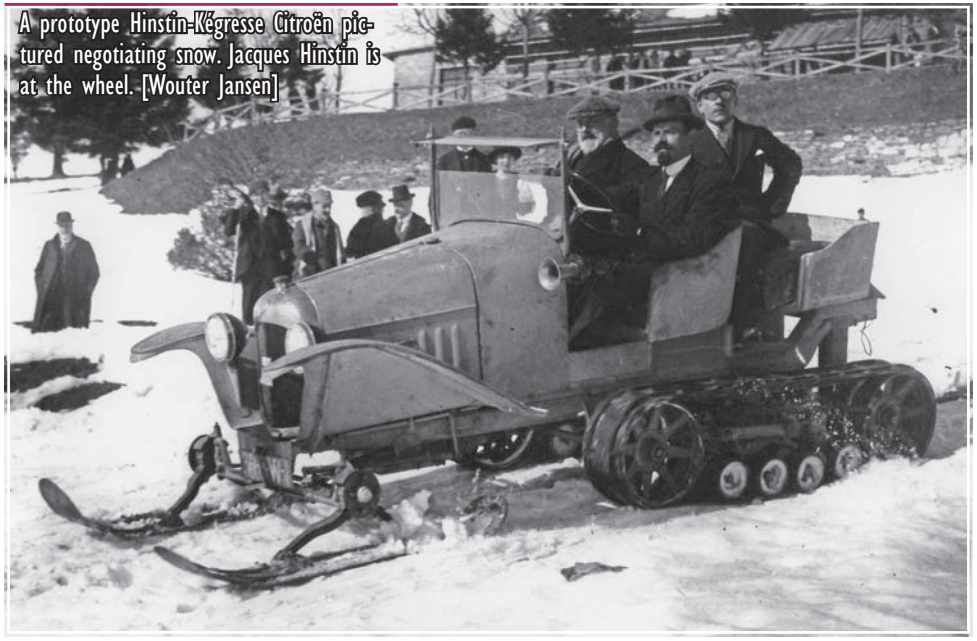
Jacques Hinstin was married to Lina who was born on May 18, 1880 and died at the age of 104 in 1984. They had three children, Adrienne, Charles and Jacqueline. Jacques Hinstin died in 1937 at the age of 63 or 64.

Postscript: Photographs of Jacques Hinstin are difficult to source, and the accompanying image of the Hinstin car is the only one I have been able to find.

Malcolm Bobbitt, June 2020

This article, by Malcolm Bobbitt, first appeared in 'The Citroënian', the magazine of the CCCUK. It is reproduced here with their permission and may not be reprinted elsewhere without their specific approval.

A prototype Hinstin-Kégresse Citroën pictured negotiating snow. Jacques Hinstin is at the wheel. [Wouter Jansen]



Closing the Garage Door

Following the announcement of the decision to cease the importation of new Citroën vehicles by the Inchcape Group, the following article appeared from Passionément Citroën. It provides an interesting international perspective on the decision, and suggests [reading between the lines] that the decision was made, not in Sydney, but in Paris.

Citroën, which has been present in Australia for more than a century, will cease new car sales in the market on November 1, 2024. This decision, announced by local distributor Inchcape Australia, marks a significant turning point in Australian automotive history, particularly for a brand that has introduced iconic models [to this market] since 1923.

This long adventure therefore ends on a sobering note, with sales of the brand's latest models failing to seduce a market in constant evolution. Citroën has not been able to reverse the trend despite several attempts to relaunch its range, including the launch of the C4 and C5 X, but the engines offered did not suit Australian consumers, especially because the distributor did not introduce the electric versions that could have differentiated them; only the C5 X plug-in hybrid was launched a few weeks ago, but without a presence in dealerships, a sign of under-investment in the brand.

This announcement suggests that Citroën's distribution network in Australia could no longer support the low sales volumes, a situation exacerbated by the merger of the Citroën and Peugeot distribution networks under the Stellantis banner. This merger, designed with a multi-brand approach to optimise costs and resources, resulted in the prioritisation of Peugeot models, notably the sacrifice of the Berlingo in favour of its counterpart, the Peugeot Partner, despite the Berlingo being Citroën's best-selling model. This strategic decision further weakened the brand's presence in a market where its commercial vehicles had historically found their audience.

An Australian Market Moving Away From Citroën's Values

Citroën's decision to withdraw from the Australian market highlights the growing incompatibility between the brand's current strategy and the expectations of Australian consumers. While Citroën has refocused its positioning on accessible and popular vehicles, the Australian market seems to be moving towards more prestigious or specialised brands, as evidenced by sales figures for niche and luxury brands. In 2023, Citroën sold only 228 vehicles in Australia, a figure lower than brands such as Ferrari or Bentley.

However, Citroën had reached its peak in 2007 with 3,803 units delivered, but since then sales have continued to decline, reaching only 175 units in 2021 and a meagre 87 units in the first half of 2024, down 35.6% on the previous year. This low level of sales contributed to the decision to withdraw the brand from the Australian market. In comparison, Peugeot managed to maintain a sufficient level of sales with 2,516 units sold in 2023, almost as much as Citroën's total sales over a five-year period.

Citroën's withdrawal from the Australian market can be interpreted as the result of a global strategy that no longer corresponds to local specificities. In a market where consumers prefer high-end or specialist vehicles, Citroën's positioning as an accessible brand no longer fits. In conclusion, this departure highlights the need for car manufacturers to adapt their offer to the cultural and economic specificities of the markets in which they wish to succeed.

Jérémy Krock

This article, by Jérémy Krock, first appeared in Passionément Citroën in August, 2024. It is reproduced here with his permission and may not be reproduced without his specific approval.

YouSed

As I have said previously, it is rare for me receive feedback in response to any article in the magazine. Be assured, I am always ready to receive feedback [both good and bad] and to receive additional information about a subject that has been featured in these pages.

One such piece of additional information has been sent by Paul Blank, a CCOCA member in Perth, in relation to the withdrawal of the Citroën brand from this market.

I read the references in the last edition of this magazine noting the demise of Citroën in Australia quoting the false information from the importer that the marque had been sold in Australia for 101 years. That would make it 1923 when our favourite French marque began sales in Australia. That's quite incorrect.

This is not the first time an Australian Citroën importer has made a blunder about this.

For some years I owned a 1998 Xantia Wagon which was a special Australian-market limited edition '75th Anniversary' model with some extra goodies fitted to celebrate Citroën importation since 1923.

In fact, through a contact in France, I was asked at the time by Citroën head office in Paris to provide proof of when Citroën was first marketed in Australia. I had thought sales here began earlier than 1923 and did some research. The answer was that by the end of 1919 the first shipment of rolling chassis arrived in Australia ready for sale and local bodywork to be fitted. That's the same year Citroën production started.

It seems that our dullard importers have assumed that the 5CV was the first model of Citroën and used that as their basis for determining when Australian sales began.

Perhaps it's a good thing that Inchcape has handed in the towel with Citroën. Many people seem to be claiming a lack of advertising caused the brand's demise here, but I think that's misguided blame. The importers have done an appalling job of grossly overpricing an underwhelming poor selection of models for long enough. 105 years of history flushed down the toilet…

Paul Blank

While, as Editor, I am not in a position to dispute Paul's assertion of imports commencing in 1919, I can endorse his views regarding some of the reasons for the brand's demise locally. Personally, I do not believe Inchcape ever wanted to take on the Citroën brand: like the original merger of Peugeot and Citroën it was a forced marriage and Citroën was undervalued and badly managed by Inchcape. Ed.

Citroën Conservatoire

I wasn't intending to go to France, but being in Luxembourg I thought it would be criminal to be so close and not take a detour to visit the Citroën Conservatoire on the outskirts of Paris.

The Conservatoire is in, what's best described as, a very ordinary industrial estate.

In fact, this low frills location sets the tone for the Conservatoire and the vehicle display ~ but nothing wrong with that.

Upon arriving, the attendant on the day turned on the lights and let me ~ the only visitor ~ wander around as I pleased.

The display vehicles were not all pristine show cars; rather, many were in what's best described as 'as delivered to the Conservatoire', meaning some had varying degrees of usage blemishes and patina. Again, not a bad thing, in my opinion.

The biggest issue is that they are so crammed in that you cannot get a good side, or inside, view of many of the vehicles.

Because there are so may vehicles on display, I will only share some of the highlights for me [apologies to lovers of Citroën models not included!]:

I must say I am not that interested in 'concept cars', because I find most ludicrous. However, I do have a fondness for prototypes, because they offer some insight into the thinking and design process behind the final commercialised models.

I have included photos of a couple I found most interesting…

Glenn Drake

Citroën Conservatoire

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Citroën Conservatoire


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1 Conservatoire display

2 Original 2CV prototypes showing how incredibly rudimentary they were in the conception stage.

3, 4 Nice quad exhaust rally DS with SM engine. Would have loved to have seen the shoe-horned SM engine under that bonnet!

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Citroën Conservatoire


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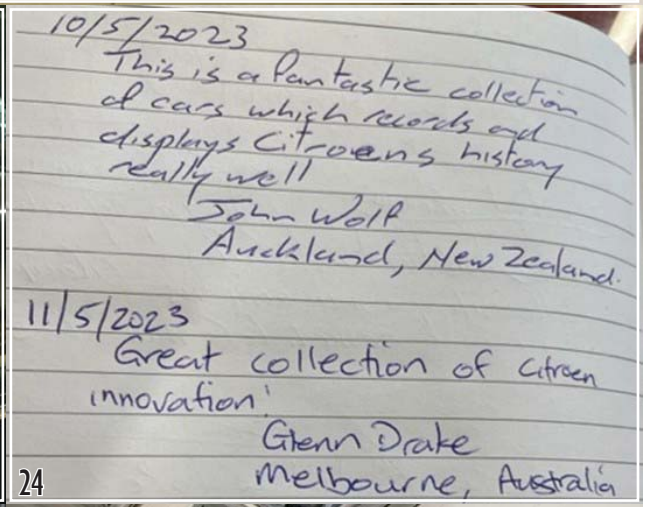

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5 Gotta say, I am glad they kept on scribbling and playing with the clay rather than stopping at this stage of design…

6, 7 Not sure if 'Project L' stood for Project Leyland, but I couldn't help but see a Leyland P76 and Rover SD1 when looking at this early CX prototype. Perhaps someone in the club's brains trust can offer some enlightenment?

8–10, 19 Fabulously muscular looking BX! And why bother with moving the door handles out flush with the oversized body kit!

11, 12 I'm already a big fan of the C6 styling, but this takes it to another gorgeous level!

13 I loved the Presidential SM's, but pretty difficult to find much to love [in my opinion] with this Presidential DS model…

14–16 There was a couple of Henri Chapron bodied Presidential SMs on display, with all their marvellous excess both in luxury and in size. They are truly enormous!

17, 18 A couple of lovely moderns I would happily have in the garage…

20–23 Of all the truly lovely cars on display, if I had to pick just one to take home, it would be the CX Prestige Turbo. What a car!!

24 Only one visitor to the Conservatoire the day before my visit… and they were from New Zealand!

26 Some interesting wall art in the shop area.

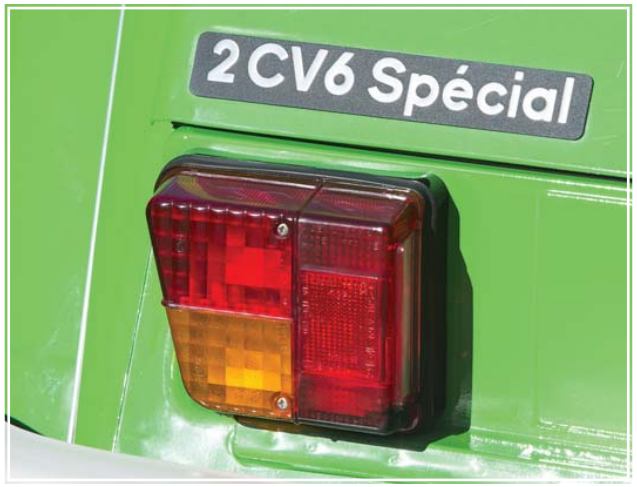
Bright Lights for Your 2CV

The writer has always been concerned about the overall dullness of the exterior lighting on the 2CV. In a separate article titled 2CV Headlights Improvement, the writer overcomes the dullness of the 2CV headlights by fitting modern LED headlight globes.

That article can be found on the CCOCA website.
https://citroenclassic.org.au/wordpress/wp-content/uploads/2024/08/2CV-Headlights-Improvement-Revision-6.pdf

2CV HEADLIGHTS

Now, moving right along to the rear of the vehicle, we'll address the dullness of the rear lighting clusters ~ the parking lights, the brake lights and the turn indicator lights. According to the 2CV owner's manual, the rear parking lights are rated at 5watts, the rear brake lights are rated at 21watts, and the front and rear turn indicator lights are also rated at 21watts. So, opening up the Yellow Pages, er, I mean Dr Google, the writer undertook a search for the latest in LED globes to replace the standard BA15S single-filament incandescent globes fitted in the rear lighting clusters of the 2CV. The BA15S globe standard has a single centre contact bayonet base.



After several experiments, the writer identified a suitable LED globe to effectively replace the standard incandescent globes. Of further interest is that the same LED globe operates perfectly in all three positions! Yes, the same wattage LED globe is fitted to the rear parking lights, the rear brake lights and the rear turn indicator lights. The daytime brightness is excellent and the visibility of the rear lights is excellent.

Contrary to the writer's initial expectations, the brightness of the rear parking lights is nowhere near excessive, and in fact, seems very normal when compared to modern vehicles. Check out the rear lights on the writer's 2CV next time you have a chance. Ask for a demonstration!

The LED globes selected by the writer are available by online order from The LED Shop Australia, based in Melbourne. The telephone number is [03] 7068 9150. [These globes may also be available from other retailers.] The item to order is: 12V BA15S 1156 WHITE Canbus 480lm

Here's a link to the globe: https://www.ledshoponline.com.au/product/ba15s/

GLOBE SHOP

This globe is rated at 5w, so it draws 0.4amps at 12v, less than the 1.75amps drawn by the standard 21w incandescent globe it replaces.

The LED globes are direct replacements for the incandescent globes, so no change is needed to the vehicle or its wiring. The standard incandescent globes can be refitted to the vehicle at any time in the future. The image above left shows the LED globe selected by the writer.

A total of eight LED globes are required for the 2CV, six for the rear lighting clusters and two for the front turn indicators.

Now, no more dull lights on the 2CV. All fixed.

Disclaimer: The writer has no association with The LED Shop Australia. The LED globe discussed above is offered here as an option for the reader because of its suitability to the 2CV, and because the writer has successfully fitted these globes to his 2CV vehicles.

Graeme Dennes

Totally Traction

I write this just two days before setting off in my Normale to celebrate the 90th Anniversary of the launch of the Traction Avant and the Light 15 at the Circuit de Charades near Clermont Ferrand with 999 other such cars.

I have not completed the rebuild of my original drive shafts and so they'll stay at home. I did receive the 1900-T puller tool for removing the pins, but it only came with the collet for one type of pin. The collet for the other half seems to be unobtainable. I should be able to find one, or learn how to get one, in France next week but, if not, I will have to have a collet made.

I don't think I have made enough of this 90th Anniversary, maybe because we are only ten years away from the centenary which, I imagine, will warrant an even bigger event.

But, 90 years is a big thing. Facebook keeps telling me of cars that are expected to be there ~ as long as the owner finishes the engine or body work. Some of the cars attending will be from 1934, although I'm not sure how many of those will get there under their own steam from any distance. There will be a several pre-war cars going from the UK, and I am sure they will attract quite a deal of attention. It's going to be interesting to see which cars come from where.

Assuming I get there! But that's one of the remarkable things about the Traction Avant. Without taking anything for granted, the car was so far ahead of its time that an 800km journey in one does not seem at all unreasonable. [But I have taken out AA European Breakdown cover.]

It's not just me ~ we all have to get there. 'We' means, I suppose, all 1,000 cars, but I will be particularly interested in the 20 odd cars travelling from the UK to make up 2% of the assembly.

Top: On the factory floor.
Inset: Ministerial-class Tractions in Paris.
Below: Slough-built cars. No two are alike.

I have an image in mind of the opening titles of 'Dad's Army', with arrows pointing to the different routes we are taking. I'm taking the Newhaven-Dieppe ferry, while others are landing at Calais, Caen and St Malo and then we converge on the Circuit de Charades.

1,000 cars that all look the same will be quite a sight ~ for a short time. After a time it could get a bit boring. But they won't all look the same. But it won't because they are not all the same. Indeed they are all different. If you work through all the variations in body style, engine size, colour and improvements you find there were easily over 1,000 combinations that left the factory. And, that's before account is taken of any owner modifications made over the last 70+ years. The chance of finding two identical cars now, in a group of 1,000, is very low. However, since the parking areas will be model and pre/post-war specific, if any identical cars do show up, there will a fair chance of spotting them if one looks hard enough ~ which will give me something to do!

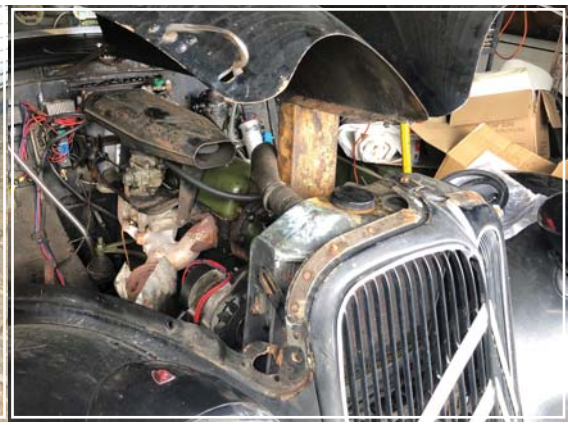
The event spreads over three days, on the last of which there will be 'sketches' presented by the various Traction clubs, including the TOC. The clubs are essentially national, and it will be a bit like the Eurovision Song Contest which, coincidentally,

Totally Traction

will be held later the same day. The UK has the benefit of having made its own versions of the car in its own Slough factory. As you know, the Slough cars differ from those made in Paris in a number of ways and the theme of our sketch will be to illustrate those differences in a humorous way. Humorous may be a challenge, given the international audience. What could possibly go wrong? We may not be welcome for the 100th Anniversary.

My own car has been giving good service over the last week, which is just as well because the DS is broken again. Nothing serious ~ at least, I hope not. I believe the clutch cable has snapped which is another thing that would be easy to attend to on a Normale but is challenging on a DS, because the clutch end of the cable is buried under the hydraulic pump. I will carry a spare clutch cable for the Traction, which I do not expect to use but, if I do, it should be a five-minute job to change.

I have had to change the Traction's radiator though, because it sprang a leak. On a Traction, this job requires the radiator grille to come off. The grille



Left: The old and the new radiators.
Right: Radiator removal prep.
Facing page: ENE ready to head for France.

supports the bonnet hinge. I didn't want to remove the bonnet completely but all I needed to do was support the front of the hinge with a block of wood on the water pump. The next complication was that the new radiator is a few millimetres taller than the old one which I fitted in 2012. I discovered this after I had filled the radiator with coolant, and tried to shut the bonnet.

I still have the radiator that was on the car when I bought it. I don't know if that is the original one ~ if it is, then it lasted 60 years whereas the replacement lasted just 12. The original one only failed because the breather tube became blocked. We were returning from the 2012 ICCCR in Harrogate, and a trip over the Queen Elizabeth Bridge, on a hot August day, was too much for it. As we set off on the M25, after paying the QEB toll, my son remarked that it was raining on his side of the car. This was odd since the weather was good on my side ~ of course, it was the radiator. The core held up fine, but the solder joints didn't, and we came home on the big yellow taxi.

This time, there is a leak somewhere in the copper core. It's only a small leak, and maybe I could have fixed it with Radweld or solder. But first, I would have to find the leak, and hope there is only one. I would be concerned that if it's thin in one place, it will be thin in others. A trip across France over a bank holiday would not be the time to test my handiwork, so I ordered a new one. When the replacement radiator arrived, I was pleased to see it had a shiny brass cap like the original. The

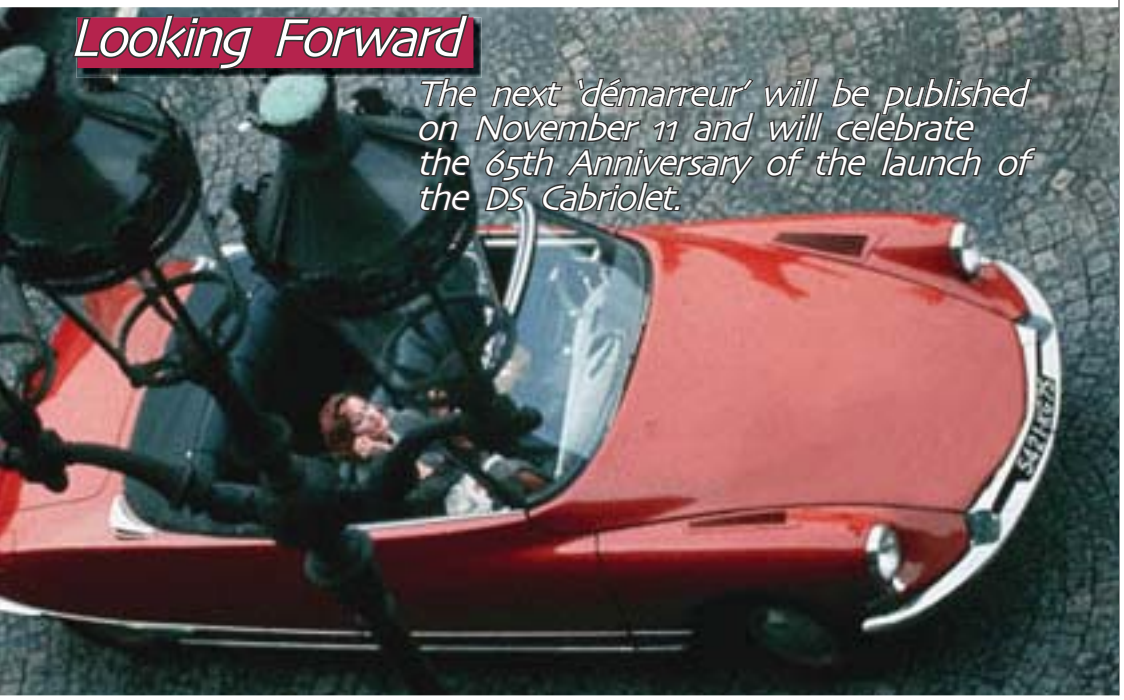
Totally Traction

12-year old's is cheap plastic. I did wonder if I could have used the old brass cap to reduce the height because it is a few millimetres thinner than the new one, but all three caps have different threads. As it was, I had to make sure the radiator was fitted as low, and the radiator grille pushed as high, as possible and to give the bonnet a little more rounded profile so that it just touches the cap when it is fully closed. That's good enough.

Is 12 years a good life for a radiator? It doesn't seem like it. I had been running it with Fernox Alphi II instead of automotive antifreeze for the last few years. This is designed for domestic heating systems which, like the radiator, are made of copper and brass. Would the presence of the iron engine block in the system make a difference to the corrosion of the copper? If anything, the iron should preferentially corrode, and protect the copper, and I don't see why using Fernox would reverse that when installed in a car. My reason for using Fernox was that it is not toxic to animals and it can therefore be poured down the drain. However, I am using Halfords finest antifreeze for now.

Tomorrow, I will grease and polish the car. Next month, I'll tell you how it went.

Chris Bailey



Looking Forward

The next 'démarreur' will be published on November 11 and will celebrate the 65th Anniversary of the launch of the DS Cabriolet.

Traction Brakes

Traction Brake Adjustments ~ Part 1

Some of the most commonly borrowed items from the club's collection of special tools for Tractions are tools for setting the brake shoes concentrically with the brake drums.

Before discussing tools, and methods for using them, it is useful to understand the thinking behind the design of the Traction's brakes, and why the tools are necessary. In principle, a similar design is used on the drum brakes found on the 2CV and the D, so this explanation also applies to those models.

The Traction's brakes are made to a Lockheed design. Lockheed, of course, is an American company. Malcolm Loughead [his name before he changed it to Lockheed] applied for a number of patents for hydraulic brakes, the earliest being granted in 1917. The following is an abridged version of some of the text in a patent application lodged in the US Patents Office by Loughead in 1924:

I provide a convenient means for adjusting the brake shoes both initially and to compensate for wear. The anchor pins are eccentric pins, the reduced threaded end being on one axis and the intermediate cylindrical portion being on another axis eccentric to the first axis. In initially assembling the brakes, these eccentric pins are turned until the end of the brake lining adjacent the pin is the correct distance from the drum. The locking screws are then tightened. As the brake linings wear down, it is necessary only to adjust the studs from time to time to compensate for wear, the eccentric pins needing resetting only when they have been taken out to permit the removal of the shoes for relining.

The studs referred to above are shown on drawings forming part of the patent as threaded members at the opposite end of the shoes from the eccentric pins. They can be adjusted outwards to bring the toe of the brake lining closer to the drum. Although the Traction's brakes are constructed somewhat differently from the drawings in the 1924 patent application and use cams to adjust the toe of the shoe, the principles are the same, so we are dealing with a concept patented 100years ago, and applied to a car design first released 90years ago.

To summarise, the eccentric bushes at the bottom of the shoes are only used for initial setting. Access is only possible with the brake drum removed from the axle. After initial setting the eccentric bushes become, in effect, fixed pivot points until the next time the drums are removed for main-

Traction Brakes

tenance, and the set-up procedure is undertaken again. For the rest of the time, the cams at the top of the backplate are used to make adjustments [from the outside of the backplate] to compensate for wear.

Why was it necessary to have an adjustment for the heels of the shoes, rather than manufacture them accurately so that the eccentrics were not necessary? Possible reasons include manufacturing tolerances not being as good 100years ago as they are today, and linings [especially off-the-shelf riveted linings] not being exactly the same radius as the drums.

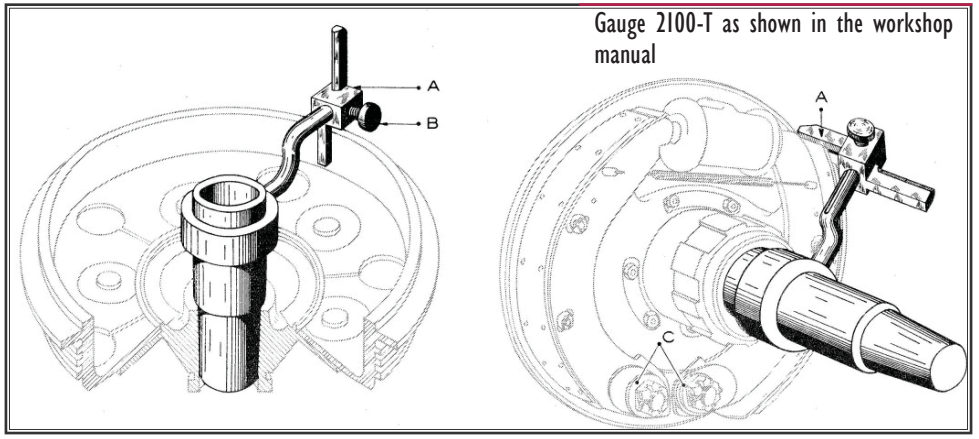
If the radius of the linings is not the same as the radius of the drums, it is impossible to get 100% contact of the lining on the drum, and best possible braking performance, at least until the linings wear a bit. It is possible [and recommended] to use thicker bonded linings and have them ground to the same radius as the drums before fitting them. Having said that, some people prefer riveted off-the shelf standard thickness linings, even if they are used with drums worn to some degree.

The Traction workshop manuals are not especially helpful in describing how to position the shoes. For the front brakes of a 4-cylinder Traction, it simply says [in the text] to use gauge 2100-T and spanner 2120-T. The explanation in the drawings isn't much more helpful in explaining the procedure to use.

Similar tools are shown in the manuals for the rear brakes of a 4-cylinder Traction [2103-T] and the front brakes of a 6-cylinder Traction [2105-T].

Here [hopefully] is a better explanation of the procedure, assuming that the linings and drums are matched for radius:

Back off the adjustment of both the eccentric bushes at the bottom of the shoes, and the adjusting cams at the top, so that the shoes are at what could be described as a minimum radius.



Gauge 2100-T as shown in the workshop manual


Starting point for eccentric bushes

As shown in the drawing on the facing page, use the gauge to determine the radius of the drums. Tighten thumbscrew B [as shown in the drawing above]. Finger A will then be used to determine the position of the shoes.

Adjust the eccentric bushes at the heel [bottom] of the shoes 'downwards and outwards' so that the lining barely makes contact with the gauge. [In the photo above, the left hand eccentric is rotated clockwise and the right hand eccentric is rotated anti-clockwise]. Note that when one adjusts the eccentric bushes, the whole shoe will move vertically as well as horizontally.

Move the gauge to the toe [top] of the shoe. Then adjust the cams so the lining barely contacts the gauge. That will probably make a small change to the position of the lining at the bottom end, so go back and adjust the eccentric bushes again.

Repeat the adjustment of the cams. Again, it will probably be a smaller adjustment than the first time.

Perform this sequence two or three times. If the shoes are correctly adjusted there should be very light contact between the lining and the gauge over the full length of the lining.

Tighten the nuts for the eccentric bushes as described in the workshop manual.

Back off the adjustment of the cams and refit the drum. Tighten the hub nut to the specified torque and fit the split pin. Then adjust the cams to move the toes of the shoes outwards until they just make contact with the drum as it is rotated, then back them off slightly until the drum runs freely. Some audible scraping without the feeling that the drum is dragging on the linings is OK.

If the linings have a smaller radius than the drum, it will be necessary to modify this technique, still adjusting the eccentric bushes and the cams in sequence, but using a point on the middle of the lining as the point where the linings first contact the drum. If this isn't done, it will

Traction Brakes

not be possible to fit the drum on the axle, because it will be obstructed by the brake shoes.

The gauges shown in the workshop manuals appear to be developments of those published in a US patent filed in 1929 by, and awarded in 1933 to, Alvin and Russell Miller. The following is an abridged version of text in their patent:

The brake drums and brake lining of automotive vehicles must be carefully gauged relative to each other at the time of original assembly, in the manufacturing or assembly plant, and at times when the brakes are adjusted or renewed. Sometimes a brake drum is oversize or undersize and the brake lining for that drum must be adjusted to meet these abnormal conditions. These irregularities in the brake drum may exist at the time of the original assembly, although the brake drum is supposed to be perfect and never used, or they may exist of course, after usage, and when the brakes are being adjusted or renewed, inasmuch as the brake drum may be worn away somewhat.

Modern patents often include a section on the 'prior art' to explain how the design differs from previous designs, and why it is superior. In 1933 the Millers didn't explain why their design is the best way to gauge drums and linings, or what the alternatives were. Nevertheless, one could speculate that the concept for the gauge came to Citroën as part of a package deal with the Lockheed brake design, and Citroën then produced the tools shown in the workshop manuals in accordance with the Miller patent.

One could also speculate that this design of gauge could be used in a car plant, using a suitable fixture, to gauge drums and set the shoes to match the drums before the matched components reached the final assembly line. Then fully assembled and adjusted backplates could be fitted on the assembly line. There would be no need to partially dismantle the brakes to perform final adjustments after the assembly of the car, and that would result in a significant time saving.

As is often the case, there is more than one way to do things, and there are ways to adjust the concentricity of the Traction brakes without using the tools shown in the workshop manual. In Part 2 we'll look at alternatives to using the tools shown in the workshop manuals.

A patent application filed by the Millers in 1932, and awarded in 1935, was for a gauge similar in concept to many shown in Part 2 of this article. That patent did not include a component for gauging the ID of the drum. The key feature was that the finger used to gauge the drum could be rotated 120°, providing three gauging surfaces. One was to gauge the brake shoe, a second was used when setting the heel of the shoe, and allowed 0.006" clearance between the shoe and the drum, and the third was used when setting the toe of the shoe, and allowed 0.012" clearance. These clearances are typically what were recommended clearances to achieve when positioning the shoes. Having said that, there are some Citroën drawings which provide dimensions of tools based on the original Miller design, and they don't accommodate these clearances. If one wants to set brakes up with these clearances when using one of the tools shown in Part 2, it is easy enough to do using a feeler gauge between the finger of the gauge and the shoe.

Traction Brake Adjustments ~ Part 2: Tools

The club has two different tool kits for brakes, and they are available for members to borrow free of charge, apart from the postage cost. The upside of using these kits is that members don't need to purchase their own tools. The downside is that they are heavy and expensive to post. Also, those who borrow these tools are sometimes put under pressure to finish the job and forward the kit on to another member who needs it.

The older kit, which the club has owned for many years, is well-made and is supplied neatly packed in a wooden box. It is suitable for the brakes on the front and rear of all models of Tractions. It is similar in concept to apparatus [apperati?] 2100-T, 2103-T and 2105-T which are shown in the workshop manuals. The kit includes spanner 2120-T, which is used for adjusting the bottom eccentric bushes.

The club also has purchased a new gauge 2100-T which, in recent times, has become available from sources in Europe. This is the same as the gauge shown in the 4-cylinder workshop manual, and it is suitable only for the front brakes on 4-cylinder Tractions. There is also a new spanner 2120-T which can be borrowed with the gauge.

Traction Brakes

Above left: 2100-T
Above right: 2120-T

We found that both new tools we purchased needed some minor modifications before they could be used. The 'wings' on 2100-T were too long, and needed to be shortened, and the teeth on 2120-T needed to be filed down before they would fit in the slots of the adjusting washers for the eccentric bushes. We have found that 2100-T needs to be held firmly against the outer bearing while it is being used. If not, it can wobble on the tapered stub axle of the car and not produce an accurate result. Also, we have found that when gauging the drum there is a tendency for the tapered dummy axle of the gauge to bind in the hub, unless well lubricated.

Bearing all this in mind, the tools are perfectly usable, even if the quality as delivered from the suppliers was disappointing. If considering buying these, you have been warned!

Recently, the gauge for the rear brakes, 2103-T, became available in Europe. We don't have this in our collection, and one can only hope that the quality is better than that of the other reproduction brake tools being sold.

The prices of the new front and rear setting tools are about $200 each by the time they are shipped to Australia, and the spanner 2120-T is about $100. In summary, they are expensive for the average Traction owner to purchase and use only occasionally.

Traction Brake Adjustments ~ Part 3: A Different Way

Here is a different method from the one described in the workshop manual, and some photos of home-made tools that can do the job. Please note that the tools shown below are just examples of what people have made. With some ingenuity on the part of the Traction [or other model] owner, there are definitely more ways to construct suitable gauges.

The alternative technique uses the brake drum and shoes fitted on the car as the starting point of the gauging process. Fit the drum on the axle [no need to tighten the nut too much] and adjust the cam for the leading shoe [the one with the full length lining], until the lining of the shoe just scrapes as the drum is rotated. This sets a 'reference radius' for the adjustment of the shoes.

Remove the drum. [It might be necessary to back off the cam a tiny amount]. Then fit and adjust a gauge similar to one of those shown below to match the radius at the top of the shoe. From there, the procedure is the same as described in Part 1 of this article ~ adjust the eccentric bushes to the reference radius now carried by the gauge, then adjust the cam, followed by a smaller adjustment on the eccentric bush and so on.

To quote Motor's Auto Repair manual from 1953, 'a brake adjustment very close to the tolerance of 0.005" clearance at the heel and 0.010" at the toe will be obtained.'

Remember the gauge is just a feeler. Don't put excessive load on it and risk losing the reference radius, or distorting the gauge.

Here are some examples of other gauges.

RING GAUGE

The ring gauge is included here simply to demonstrate a point, and to lead logically to the first of the methods of making a suitable concentricity gauge. Ring gauges are especially useful if the drums aren't worn, and the linings are new. In that case, the ring gauge can be the same diameter as the drum, and the shoes can be adjusted easily to suit. If the ring gauge has a larger diameter than the drum, a feeler gauge can be used with the ring gauge to achieve concentricity. Visibility of the contact between the shoes and the gauge, and access for the feeler gauge is excellent. Burton supply a ring gauge for the rear brakes of the 2CV, but there aren't such gauges available for the Traction. Making a ring gauge is usually beyond the capabilities of someone with basic home workshop facilities.

Traction Brakes

DUMMY DRUMS

The dummy drum can be viewed as a home-made variant of the ring gauge, made from an old brake drum. [No-one destroys a perfectly good drum these days]! The radius of the dummy drum must be greater than the reference radius determined by contact between the toe of the leading shoe and the drum which is used on the car. A section of the drum is cut away, as shown. Feeler gauges are used to measure the gap between the brake lining [at the top of the leading shoe] and the dummy drum. Then the shoes are adjusted until this gap is consistent over the length of both the leading and trailing linings. Cut-outs allow access to adjust the eccentrics.

HUB WITH POINTER

Once again, this method uses worn out parts as the basis for the tools. The brake drum is removed from the hub, leaving just the centre part. An adjustable pointer is attached to the hub. Then the shoes are adjusted until the pointer just scrapes on the linings over their full length. A cut-out next to the pointer provides access to the eccentric bush adjusters. This type of gauge can be viewed as a variant of the dummy drum, and it is easier to use.

**Left: Photos of the dummy drum home-made variant of the ring gauge.
Below and facing page top left: Hub with pointer.**

USING OLD WHEEL BEARINGS

Larger versions of the Traction have a 35mm diameter axle on the rear of the car. The inner front wheel bearing of the 4-cylinder Traction has an ID of 35mm. The gauge on the left centre is constructed from two of those old front inner bearings, a length of PVC pipe, a piece of steel and a compass, and is used to adjust the shoes on a Family 9.

The gauge on the left bottom, for the rear brakes of a 2CV, also uses an old Traction front inner bearing. Of course, a 2CV wheel bearing could also be used.

USING 25MM PVC PIPE

These gauges are simple and cheap. However, it takes a bit more time to make them than meets the eye.

Front axle gauge: A hub nut fitted in reverse helps centre the outer end of the tee. The inner end of the PVC tee has an ID of 34mm. A strip of fridge magnet material glued inside the mouth of the tee is adequate to reduce the diameter to 32mm to match the diameter of the axle. Rotate the axle when using, rather than rotating the gauge on the axle.

Traction with 30mm rear

**Left centre: Using old Traction wheel bearings on a Family 9
Bottom: Traction inner bearings brought to bear on a 2CV.**

Traction Brakes

1


5


2

axle: 25mm PVC pipe has a nominal ID of 30mm. In practice the ID is 29.8mm, so some work with a half-round file is required to increase the ID of the pipe so that it will slide onto the axle. The inside of the tee and the socket also need some work with the file to remove plastic so that these fittings can slide on the pipe.

A FURTHER OPTION

One for use on a D, made using timber [1, facing page, top left.]


3


4

or another sort of lever, and the job is done. It is not as rugged as the bought item, but it is adequate given that it doesn't require much torque to rotate the bushes. [6: below.]

Someone has managed to adapt a 2-pin spanner like that used for changing discs on an angle grinder. [7: bottom.]

At a pinch, even long nosed pliers can be used.

Ian Macdermott

USING THE AXLE NUT

Tools which use the axle nut as a means of rotating around a centre

Not from a Citroën. This one is for a Chrysler, which also uses Lockheed brakes. Nicely made! [2, facing page, right centre.]

Gauge for a 2CV, courtesy of club member Axel Kaliske. [3, 4: facing page right, bottom]

Still under development, this is intended to be a gauge which suits all Traction brakes: [5: above.]

- 10" and 12" drums
- 30mm and 35mm rear axles
- Left and right hand nuts on the front axle

TOOLS FOR ADJUSTING ECCENTRICS

For adjusting the eccentric bushes, a 2120-T substitute can be made from a short length of ¾" water pipe. Just file two teeth, flare the teeth out a fraction, drill a hole for a Philips head screwdriver [for example]


6


7

In the Limelight

This French 1991 action comedy is a confusing mix of drama, comedy, slapstick and action involving arms smuggling. A strong cast, including Jean Reno [Capt Philippe Boulier, 'Shark'], Christian Clavier [Jean-Jacques Granianski], Valérie Lemercier [Marie-Laurence Granainski] and Isabelle Renauld [Agent Isabelle Fourreau], helped it become reasonably successful in France. However, although it was hardly a standout film in itself, what interests us here is that Citroën supplied most of the vehicles for the film

~ AX, BX, XM, a CX Evasion Ambulance and a smart C 25E Combi Confort.

For the purposes of this summary we must, however, concentrate on the 1990 Rouge Delage BX 16 TGS which is the star car of the film. Driven ferociously with Reno at the wheel [he performed many of

In the Limelight

the stunts himself] the poor BX endures relentless punishment along the way, but somehow keeps going. Testament, it seems, to the BX's hidden strength. As the hapless passenger, Clavier expresses fear that was understandably very real.

For filming, six BXs were used: a new BX was used for the gentler scene and for on-board shots. For the somewhat more eventful scene other, older cars were made up to look like new. The car used for the final, explosive 'sunflower field' scene sequence is an older model ~ its interior being brown, as opposed to the grey of the newer BX. But, that doesn't make it easier for any BX fan to watch!

Unusually perhaps, the Presidential cars are not Citroëns, but a rather handsome V6 XM does make an appearance later in the film. Maybe because

Shark: They're pernickety about expenses.
Jean-Jacques: I'm willing to negotiate.
Shark: How much?
Jean-Jacques: Total reimbursement of my BX; new for old. BX 16, Delage red.
Shark: I'll see what I can do...
Jean-Jacques: I've changed my mind. I'd rather have an XM.

of Citroën's welcome support, it survives unscathed, whereas a 'rival' 1988 Renault 25 Limousine Heuliez Série II meets a spectacular end.

Phil Chidlow.

Dyanissima: The Italian Job

In 1948, three years after the end of the war, Citroën presented the 2CV in France, a car that would later become almost the symbol of the country's reconstruction. It is almost impossible to talk about automotive France without thinking of that unmistakable and utterly original car.

Time stops for nothing and for no one: even the 2CV began to show its age. It was becoming too old even for the taste of the French user, who was oriented towards more modern lines. For this reason, and also because traffic conditions demanded it, given road development and increased speeds, Citroën subjected the 2CV to a bodywork clearly inspired by that of the 2CV in its mass layout, but with more modern solutions, and in September 1967 presented the 'Dyane', which was later joined by the 'Dyanissima', which we are now testing. In the company's intentions, the 'Dyane' should renew the success of the 2CV, being closely linked to it in its construction concepts and general layout.

You may recall that the 'Dyane' was built in two versions; 'Dyane 4', which had the engine of the 2CV 425cc [15.3kW/SAE] and 'Dyane 6' [in Italy it is called 'Dyanissima'] with the 602cc engine of the 'Ami 6', 20.9kW [SAE], but with almost identical bodywork for the two models.

Aesthetics

This is definitely personal opinion: the line is characteristic, but certainly not beautiful.

It is very difficult to pass judgement on the aesthetic validity of the 'Dyanissima'. Citroën certainly took the now famous 2CV into account when constructing it. The 2CV is so famous that it was for a considerable period of time the prime mover in France and almost became part of the Parisian motoring landscape.

All this had a decisive influence on the stylistic layout of the new 2CV; otherwise, one could not explain, for example, the front part of the car, which retained the outer mudguards of the previous version. The whole line then of the 'Dyanissima' makes one think of a design study aimed at inserting modern elements into an outdated, mass-market vehicle, as economically as possible.

The doors, for example, are ridged and ribbed, which not only stiffen them, but also tend to diminish the effect of the car's excessive height a little.

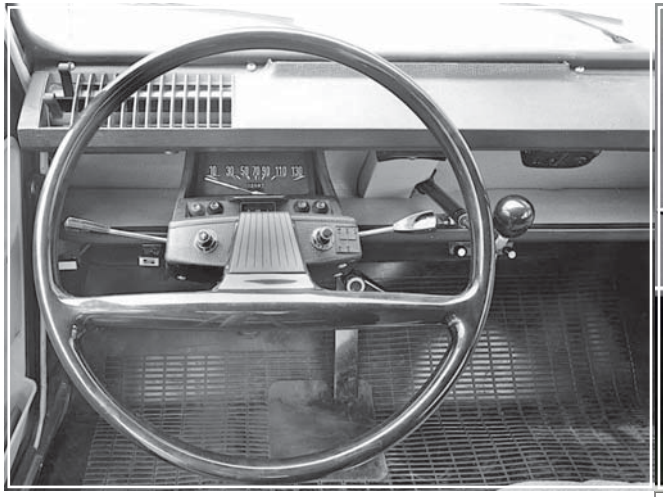
To the rear, the characteristic rear wing design has remained, though it is less pronounced than on the original car.

More successful is the tail, where the problem of the tailgate and the connection between the mudguards and the lower edge, into which the bumpers and tail lights are fixed, has been solved very well.

The front headlamps underneath which are the indicator repeaters and the alloy door handles are all successfully executed.

What remains, unlad-

Dyanissima: The Italian Job



en and under load, is the raised-tail stance, which certainly does not suit the aesthetics of the car.

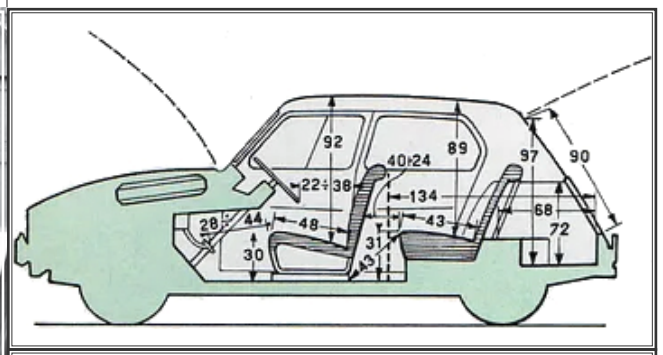
People and Luggage.

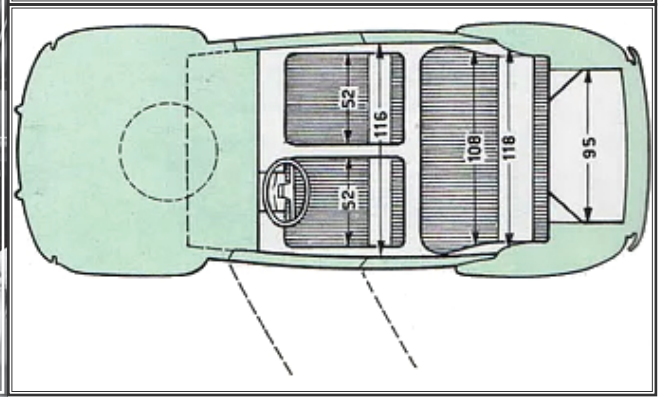
- Four comfortable seats for small to medium-sized people, with a capable boot; the interior space could, however, be better exploited.

In relation to the external dimensions of the car, which in reality, taking into account the engine capacity, are not very small, the interior space could be better utilised; on the other hand, the limits imposed play a decisive role in the design.

Space is good for four people of small to medium size, but tall people may complain about a lack of legroom when the front seat is all the way back. However, for two passengers of small to medium stature the width is is good.

The boot is capacious, regular in shape and well utilised [there is no spare wheel, which is stowed in the engine compartment instead]. The rear seat can be folded forward and can even be removed, which considerably increases the load-carrying capacity. There are practical rigid storage pockets in the front doors, as well as a storage shelf under the dashboard.





Quality of Finish

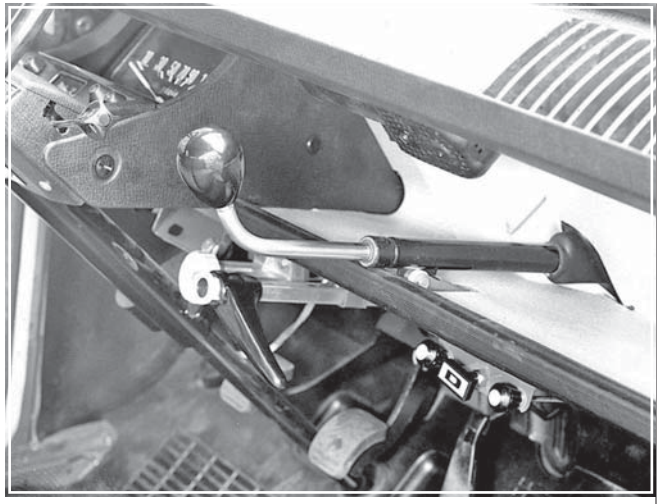
- Many elements are well finished, others should be revised.

Several elements are very well designed, especially in the interests of simplicity of construction and ease of assembly. Others would benefit from some refinement in their design. Among the former are the interior door panels, the dashboard, the soft top and various external body parts. Among the latter are the boot floor, with sheet metal on show, and without a rubber mat that would also reduce the noise caused by the jolting of luggage when the car is in motion.

Driving Position

- Drivers adopt a hunched

Dyanissima: The Italian Job



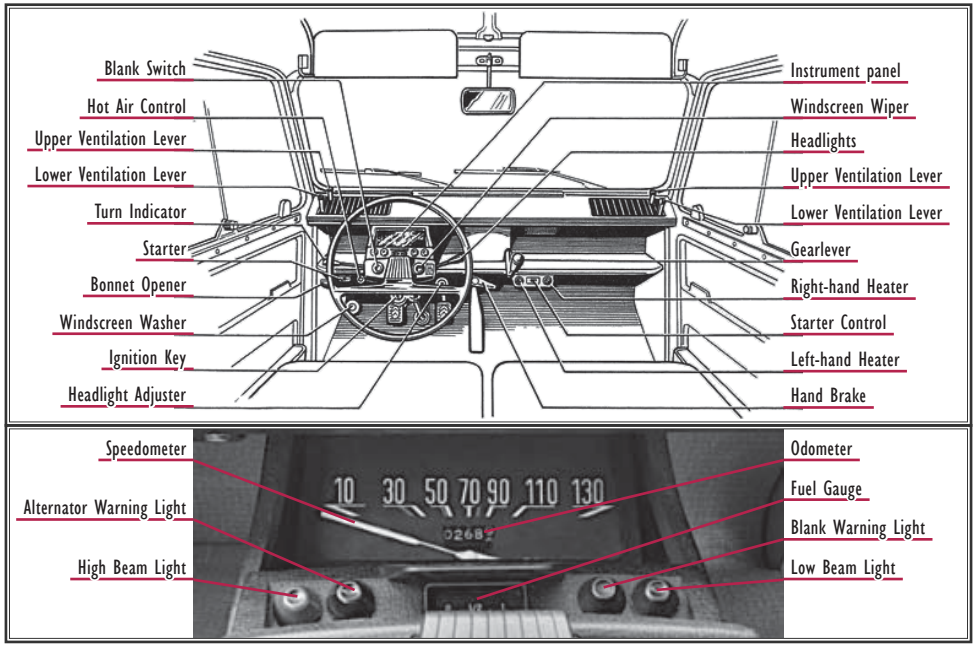
stance because of a somewhat flat and high steering wheel.

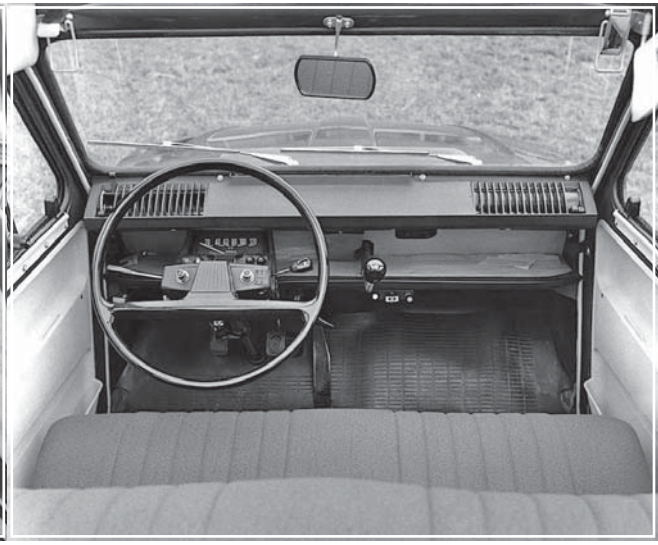
The position of the steering wheel, which is rather flat and raised, results in a somewhat hunched driving position. This can be comfortable for drivers of short and medium height. It is much less so on long journeys and for tall drivers. This particular driving position, which requires the legs to be spread apart and the wrists to be in a very angled position, similar to those of the Mini Minor, is certainly not suitable for fast, sporty driving on rough roads.

Controls

- Some comfortable; others, including the steering wheel, should be reviewed

The main criticism regarding the layout of the controls of the 'Dyanissima' is the steering wheel. It is too flat, which forces the driver to hold their wrist and forearm in a position which is not very natural. On short city journeys this is of little inconvenience, but on rough roads and long journeys, it forces the driver into positions that are not exactly comfortable for





Dyanissima: The Italian Job

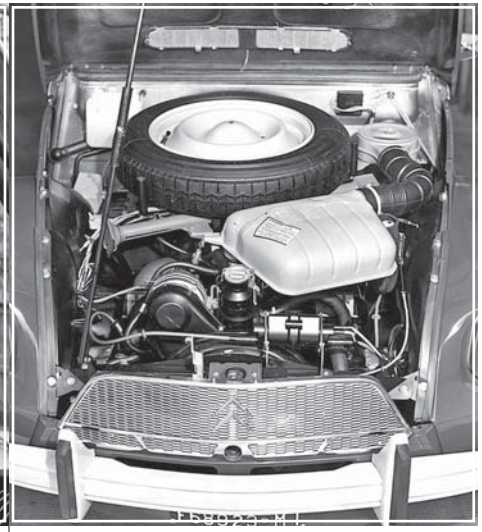
a pleasant ride.

The pedals should also be modified a bit because the brake and clutch pedals are a little too close to the steering column and it is easy to bump into them.

The other controls, however, are extremely simple, few in number and in harmony with the car's decidedly utilitarian characteristics.

Respectively on the left and right of the steering wheel, we find the levers that control the direction indicators and the one that operates the parking lights, the headlights and the horn. On the left, under the dashboard is the lever for operating the cold start choke and the one for hot air intake. The handle for opening the bonnet is also under the dashboard, on the far left. Low down, next to the steering column, in a rather uncomfortable location, is the key starter. To the right, on the instrument shelf, is the windscreen wiper control switch; on the lower edge of the dashboard are the two levers for the heating and ventilation controls, the pull-starter and the gearstick built according to the characteristic Citroën scheme.

The two sun visors are padded and can also be used laterally. The passenger one is equipped with a courtesy mirror.



The engine compartment is practically occupied by the voluminous silencer-air filter and the spare wheel. Notice, to the left of the engine oil filler, the alternator.

Manoeuvrability is good.

At the far edges of the dashboard are two levers that open the external air outlet slots.

Opening and closing the roof is very easy. Opening the door from the inside is less easy, especially when you are not very used to the car, because the lever is well hidden.

Instrumentation

- Extremely limited equipment, not always readable. Barely sufficient.

Even taking into account the utilitarian character of the car, we have to say that the instrumentation is not great and some elements, especially the fuel level indicator, are not very visible.

Basically, instrumentation consists of the speedometer, total odometer, fuel level indicator, alternator warning light and headlight indicator. There is no fuel reserve indicator/low fuel warning or an oil pressure gauge. The car makes do with a modest oil pressure warning light.

Visibility

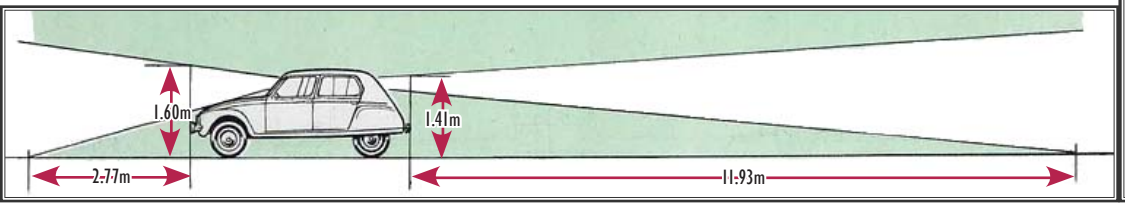
- Fair to the front and sides; poor to the rear, also when manoeuvring.

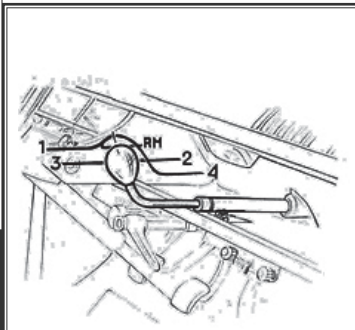
The design of the windows

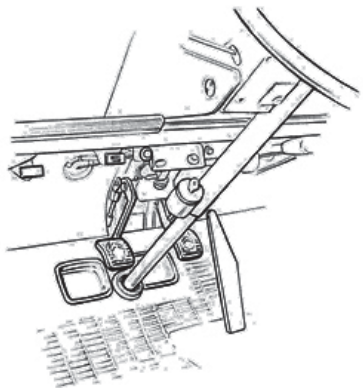
The characteristic gearshift layout of the positions of the individual gears. Underneath the parcel shelf is a glimpse of the handbrake with its pistol grip handle.

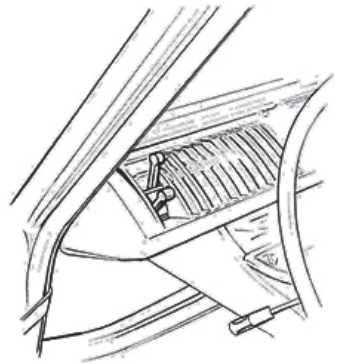
At the point where the clutch and brake pedals hit the floor, two recesses are moulded into the floor mat to increase pedal travel. On the steering column you can see the ignition key.

Detail of the two levers that regulate the orientation of the flow of fresh air from the two vents on the dashboard.









Dyanissima: The Italian Job

and the shape of the bodywork do not allow good visibility, especially to the rear. It is not easy to assess the dimensions of the car which, among other things, despite being a 'small' car, actually has considerable dimensions.

Water Tightness

- Slight infiltrations through the edges of the roof.

During use of the car in the watertightness test at the washing bay [test duration 15minutes, water pressure 24 atmospheres/353psi] we found only slight leaks through the side edges of the soft top.

Equipment

- Overall, the equipment could be improved, even taking into account the car's characteristics.

The rear-view mirror lacks an anti-glare switch. On each side of the rear-view mirror there are sun visors which can be turned to the side. The front doors have practical rigid storage pockets, although they are not very deep, and sliding windows. The rear doors, on the other hand, have fixed windows. There are no passenger handgrips, there is instead a handy storage shelf under the dashboard. Overall, the equipment is spartan and of a decidedly utilitarian character.

Minor Maintenance

- Very simple and excellent accessibility to the engine compartment.

Checking engine oil and brake fluid levels and the battery water are fairly easy. On the other hand, the construction characteristics of the engine and the car greatly reduce the need for minor maintenance.

Even with a full boot, changing the spare wheel, which is stowed in the engine compartment, is convenient.

Top speed

- Slightly lower than manufacturer's declared top speed

The manufacturer claims a top speed of 110kph; during the test we reached a slightly lower one; 107.57kph. In absolute terms, therefore, the value is not high, but taking into account the robustness of the engine and the car's decidedly utilitarian character, we can say that the top speed is practically indistinguishable from the cruising speed.

Acceleration

- The car certainly doesn't shine for its acceleration.

Even if we don't consider the 'Dyanissima' a car with sporty characteristics, we find the time for a standing kilometre to be mediocre: 46.5sec, resulting in an average speed of 77.419kph. It should be noted that 1st, 2nd and 3rd are quite 'short', 4th is fairly 'long'.

Recovery

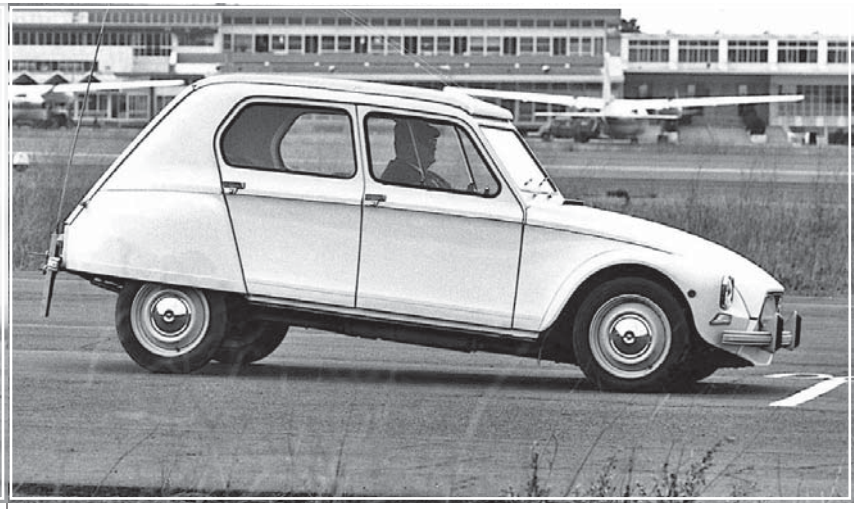
- Barely sufficient value.

The pick-up time from 30kph in the highest gear is 53.76sec, and emphasises the car's 'relaxed' characteristics, which has been designed as a real utility vehicle. However, considering the current traffic, this value can only be described as just barely sufficient.

Hill Climbing

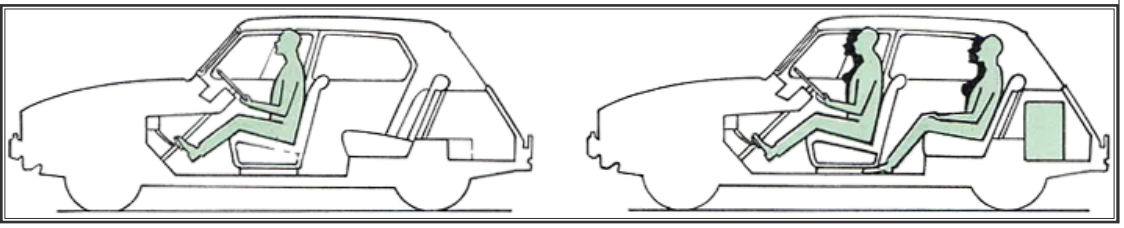
- Facilitated by the car's good road-holding characteristics, but certainly not by its power.

The car's good road-holding characteristics allow even an ordinary driver to make full use of the car in mountainous terrain. It must be said, however, that the power available is not



Minimum operating weight: car partially fuelled [half tank] and driver only: 655kg of which 400kg [61.1%] is at the front and 255kg [38.95] is at the rear.

Maximum operating weight conditions: fully fuelled car, four people on board and 40kg of luggage: 910kg of which 450kg [49.5%] is at the front and 460kg [50.5%] is at the rear.



Dyanissima: The Italian Job

Opening the canvas roof halfway, from inside the car, is very easy to accomplish. With a slightly more tricky manoeuvre it can be fully opened.

the highest and therefore it is not possible to achieve more brilliant performance.

Fuel Consumption

- Contained even at high speeds

This is certainly one of the most appreciable features of the car, which, partly as a result of the low engine speed, allows the driver low fuel consumption. At top speed it is practically 7.5L/100km. Because of this sobriety, the car is appreciated by many users.

Road Holding

- Very good, although the car has considerable body roll when cornering.

The road-holding of the 'Dyanissima' is decidedly good and perfectly suited to its characteristics. It is a typical front-wheel drive; understeering under power, and characterised by considerable body roll, which can be disconcerting [especially for those who see it coming] when moving along a track bristling with bends.

On any terrain the car has always been safe and reliable; only when going downhill we have noticed, at the limit, a certain tendency to skid on all four wheels. This is probably also due to the fact that the power available to the front wheels is not high. This should also be borne in mind when you are very familiar with the car, especially in fast corners or downhill. It should be noted that at maximum load the spread of weight is very close to 50% on each axle.

Ride Comfort

- Characterised by excessive roll and noise

The generous wheels, smooth suspension, excellent springing and upholstery of the seats provide the occupants with good ride comfort even on bumpy roads.

People who suffer from motion sickness, on the other hand, are disturbed by the excessive sideways leaning, pitching of the car and noticeable noise.

Engine

- Robust, fuel-efficient, not very powerful. A little noisy.

The engine is characterised by undoubted robustness and good fuel economy. It easily withstands over-revving and shows no particular signs of fatigue even after long pulls; however, it is not very powerful and a little noisy.

Clutch

- Sharp and unprogressive clutch engagement, but robust.

We have complained about the lack of a centrifugal clutch [obtainable at extra cost], which is very useful in city driving, but we find this one more robust, albeit not very progressive.

Gearbox

- Precise, but transmits vibrations and is a little harsh when manoeuvring.

Steering is precise, but has the disadvantage of being heavy at low speeds and when manoeuvring. It also becomes weighty under acceleration and transmits vibrations and suspension shocks.

Brakes

- The pedal effort is fairly high, but they are resistant to use.

The brakes are robust, but characterised by a fairly high average pedal effort [25kg]. However, they remain efficient even after heavy use, without showing any particular signs of fatigue.

This article first appeared in the Italian magazine 'Quattroroute] in July, 1968. Neither the author nor the photographer is identified. It was translated by the editor using DeepL and any errors in translation are the fault of the editor.

My First Car

My very first car was a 1951 Citroën 11 BL, 3-speed manual, Traction Avant.

When still in Warsaw [if you asked where, it is in Poland], I purchased it in 1975 for the equivalent of my four months' salaries, while still working in PIMOT [Chief Institute for Motor Industries in Poland] as a car designer [power trains and research].

This car in black was a standard issue for Polish UB [Urząd Bezpieczeństwa] a Secret Service 'rolling stock'. Its condition was one to cry over, but it was what at the time I could afford.

Being a 29-year-old mechanical [car] Professional Engineer, I decided that before doing anything to this car I first must do some driving to make correct decisions, so I did drive it for some three months to learn of its good and bad sides.

Eventually I rented a small shed, close to my home, and put the car on bricks and my work on the car began in earnest; it took me an entire three years to complete it.

At that time I had access to some professional equipment such as an engine lift, welding equipment, tools and so on.

In Poland, because the car was a standard issue to the UB, I could buy from certain places ALL the spare parts I needed. Unfortunately the cost in US$ was prohibitive for me. It would amount to two, or more, of my annual salaries. At that time I had a two-year-old daughter.

Each evening, after work, I was going to my shade [old stable] to first disassemble the car, to see what to do next.

I managed to obtain an original [in French] Citroën BL spare parts catalogue plus a French to Polish technical dictionary [both still in my possession]. So, at least I knew what to look for and what to call it. It took the first three, or so, months to learn where to go and what to do.

At that time I had a Lambretta 150 LD so moving about in search of parts was easy.

First, I disassembled the car to the last bolt and screw, starting with engine; the pistons were worn, so were the cylinder liners, big ends and most of the moving parts.

Since my budget was very, very tight, and my first job after college was at Polish Railways, I decided to approach my old friends for help.

In the meantime, I changed

My First Car

my job and became a Technical Director in a section of the transport division of Polish Post and Telecom, with 12 car fitters and some 360 vans and trucks on my hands.

Instead of me buying a set of new pistons, I re-machined the old ones to correct ovals and cones on PIMOT's lathe, made new piston pins of high grade steel which were carbonised, heat treated and ground by my PIMOT friends for a bottle of Vodka*. My railway friends centrifugally cast four new cylinder liners for me for another two bottle of vodka. They machined and ground them to suit the 'new' old pistons. The liners were then hard chrome galvanised and given a final grind plus honed to properly match the pistons. Next a set of new piston rings was made by my friendly 'piston ring' workshop.

After this the cylinder head was milled down by 3mm bringing original compression ratio from 6.8:1 to approximately 9:1. Obviously I first checked the engine for piston interference.

After this an old Solex carburettor was replaced with a brand new twin throttle Weber carby with nozzles suitable for a 2-litre engine. Obviously, I had to make a new flange to fit the intake manifold. Next the brass big end bearings shells were re-cast in the railway yards with the most modern white alloy. Although the engine lost a couple of cubic centimetres, it was much stronger then when Citroën originally made it.

The idling revs were set at 150rpm [I measured it], you almost could count the revs of the crank input nut at the gearbox front end.

The gearbox was next. I had to machine some bushes, change bearings and re-adjust the final drive and the crown wheel and pinion clearance.

Following this was the suspension work, with the body work coming next. A friend re-welded all holes in the car for another bottle of Vodka, I ground it all to get it as straight as possible, new primer was applied in those places. Marine red lead oxide primer was injected into all the channels and, finally, I painted the car body with all components like doors, mud guards, trunk and bonnet parts separately with a beautiful German dark green paint with parrots on the tins.

Since all the window glass was flat, the cost of replacing them with all modern tempered to the spec was negligible. So the car got all new windows from a local shop that specialized in tempered automotive glass.

The interior I have redone myself too with new seat upholstery I sewed on my mum's sawing machine. New carpets and new head liner were installed as well.

New plastic strips were installed between corresponding parts and after all this the relevant parts were re-chromed and polished: the car looked like new!

The last thing was the wheels; the 165 SR 400 Michelin X tyres were out of question. The wheels were modified to the closest Imperial tyre size. From my memory this was 195/75 R 15 and they worked very well too. They were much wider as well and the car performed excellently.

After all I had done, the fuel efficiency went from 12.5L/100kms down to 8.5L/100kms, and the maximum speed from the original 120kph to just over 150kph. Also, the car could spin its wheels over the entire first gear up to 45kph ~ if pushed hard. As a result, I had a number of offers to swap the car for a brand new one of other makes and offers to buy it too.

In 1981 I left Poland for Austria and when in Vienna I applied for Australian visa; when accepted I sold the car to an Austrian friend, so unfortunately, no more Citroën 11 BL for me. I guess that here, today, a car of equivalent quality would now cost about $50,000! It was truly an automotive love of my life!

* At that time a bottle of Vodka in Poland would set you back the equivalent of today's AU$15.

Engine Specifications

Engine manufacturer: Citroën
Engine type: spark-ignition 4-stroke
Fuel type: gasoline [petrol]
Fuel system: carburettor
Charge system: naturally aspirated
Valves per cylinder: 2
Carburretor: Solex 32PBIC
Cylinders alignment: 4, in line
Displacement: 1,911cc/116.7cu ini
Horsepower [Net]: 42kW/56hp @ 4,000rpm
Horsepower [Gross]: 43.5kW/58hp @ 4,000rpm
Torque [Gross]: 122Nm/90 ft-lb@ 2,200rpm
Car power to weight ratio [Net]: 37.7watt/kg/17.1watt/lb
Car power to weight ratio [Gross]: 39watt/kg/18watt/lb
Car weight to power ratio [Net]: 26.5kg/kW/43.9lbs/hp
Car weight to power ratio [Gross]: 25.6kg/kW/42.4lbs/hp

Wojtek Maleczek

CITROËN CLASSIC OWNERS' CLUB OF AUSTRALIA

Australia's National Citroën Car Club