

FRONT DRIVE Volume 6 Number 5 January/February 1983


CCOCA IS A MEMBER OF：
ASSOCIATION OF MOTORING CLUBS

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## A MESSAGE FRCM THE PRESIDENT

CCOCf. is currently in a strange situation - 1982 has been a record year with regard to the number of members in the club, however, apart from one or two events earlier in the year (such as the Como Concours), attendances and functions and monthly meetings have teen very poor.

Your Committee is at a loss to understand the cause of the present slump, as the range of events and functions, both social and technical, is, we feel, second to none.

For a club that has well over 150 full and joint members, of which about half live in llelbourne, a turn-up of only about 15 people at meetings is extremely disappointing.

I have stated on a number of occasions that CCOCA is in existence for you, the member, and that without your support the club cannot exist.

At the 1983 AGiN, all Committee positions become vacant, and I have already been informed that at least two current members will be unable to stand again because of other committments. Now is the time for you to seriously consider where you want CCOCA to head and what you can do to help. Don't be frightened off by the amount of work or time involved, because it is not as much as you think, and the rest of the Committee is always ready to help.

Finally, I urge everyone who regularly attends meetings or functions to encourage another member who doesn't regularly turn up to do so, and for the non-regulars and people who never attend to make a special effort in 1983 to support your club.

Joinn Couche.

FRONT DRIVE DEADLINE March/Apri1 issue: 18 February 1983

NEXT CLUB RALLIES:
Austraction '83, January 29-31, Harrietville. Welding Workshop. February 27,35 Newman Street, Thornbury.

## CCOCA MEMBERSHIP:

Joining Fee (new members and late subscriptions): \$5.00
Annual Subscription: Full Member $\$ 20.00$
Associate Member \$15.00
Joint Membership available to spouse of Full member, no cost. Overseas Postage Rate: $\$ 5.00$

CCOCA meetings are held on the last Wednesday of every month at 8.00 pm at the Coffee Shop Meeting Room of the Nunawading Civic Centre, Nunawading, east of Springvale Road.

## The Citroën B2



In 1919, most automobile manufacturers, especially those in France, did not give the ex-Dutch gear cutter Andre Citroen, much of a chance of finding and holding a slice of the blossoming new industry called motorcars. However, after only eighteen months, the Citroen Type $A$ had secured a healthy position in the sales market that the company still holds today.

To follow up the success of the Type A, Citroen, in 1921, introduced an improved version of the original car and called it the B2 (or 2-B, to use its technical description).

Although the Type $A$ and the 32 were very similar in design, with the same chassis dimensions of track and whe el base, very few parts in the two cars were interchangeable. Mechanically, engine capacity had increased to 1452 ccby increasing the bore by three millimetres, whilst the stroke remained unchanged at 100 mm . Brake horsepower of the new powerplant was now a staggering 20 bhp , giving the B2 a top speed of 44 mph and a cruising speed of 39 mph . Fuel consumption was only average at a little better than 31 mpg . To assist in cooling the new engine, a belt-driven fan was now fitted to the thermosyphon radiator.

Externally, the B2 was distinguished primarily by a higher radiator than that previously used, which gave the
bonnet a near horizontal stance. A facelifted model released about halfway through the production run featured new mudguards, which were flat not ribbed, new doors with rounded corners, louvres along the full length of the bonnet, and the spare wheel relocated at the rear. As with the Type A, only rear brakes and a transmission brake were supplied. Four wheel brakes were not introduced until the Bl2 model was released.

The new model range featured a wide variety of body styles to satisfy all tastes, and included a sports version in 1923 known as the "Caddy". Unlike the Type A sport, the Caddy was equipped with side valves, but it produced 22 bhp by virtue of a nigher compression ratio, a special camshaft and a "tuned" inlet system. A few Caddys were equipped with an after-market overhead valve conversion by specialist companies approved by the Citroen factory. These produced a healthy 30 bhp, enabling the Caddy to run to more than 90 kph .

Other body styles produced by Citroen on the B2 chassis included the torpedo, a doctor's coupe, a threeseat cabriolet, a coupe de ville and a landaulet in luxury and taxi versions. A utility vehicle called the "Normande" was also produced, which may have been the forerunner of the modern station wagon or break.

The Normande was an interesting variation, as it came equipped with the front end of a torpedo and a timber utility rear end. Citroen thought, quite logically, that the timber body sections would stand up to the rough handling and loads imposed upon it by French farmers mu ch better than would painted steel panels. When a timber roof was also added, and the name changed to "Boulangere", the van very quickly became a favourite with French bakers because of its ability to keep the croissants dry.

By 1923, the standard torpedo went out of production, being replaced by the B2 Normale with a polished timber dashboard, and a torpedo luxe with an engine-turned aluminium instrument panel.

As mentioned in the previous Traction Arriere on the Type A, Citroens had to be capable of going almost anywhere their owners wanted to take them. When there were no roads, or the ground was too soft or marshy for wheels, Citroen half-tracks came into their own. The drive system utilised rubber tracks developed by the former manager of the Russian Court automobile fleet, Adolphe Kegresse. The half-tracks were based on his extensive experience gained in building vehicles to traverse the snowcovered Russian version of our outback.

The $B 2$ versions of the half-tracks were perhaps the most significant model, being the type used in the running of Citroen's famous "raids". The first raid undertaken by the company from 16 December 1922 to 7 January 1923, used five B2 based half-tracks which slid, slipped and clawed their way across $3,200 \mathrm{~km}$ of burning Sahara desert from Touggourt to the infamous Timbuctoo, covering a route never before travelled by motorised vehicles.

The Black Cruise, or Raid, was held from 28 October 1924 to 26 June 1926 , and travelled from Algiers to Madagascar by two separate routes. Both raids showed the world that Citroen, as an automobile manufacturer, could build immensely strong and reliable vehicles and was a force to be reck-
oned with in the market place. As a publicity stunt, the B2 half-tracks had the name of Citroen on the lips of people in most countries of the world.

Back home in Paris and a large number of other French and foreign cities, the B2 was seen in more familiar form, as a taxi. The car, with its reliable and reasonably economical 10 hp engine was ideally suited to this task, and came from the factory fitted with, in classic landaulet form, coachwork panelled in split cane. There was room for two passengers in the enclosed rear section, and a third up front alongside the driver, braving the elements. If you were part of a crowd, or wanted to share the taxi, two further folding seats, a la Family 9, were located in the rear section.

The bodies of all the B2 models, as well as those of the earlier Type A, were, like nearly all other cars excepting a handful of American models such as Dodge, fitted with steel panels nailed onto a wooden frame.

At the end of 1924, after Citroen purchased the rights to the Budd system of building all-steel bodies, having attempted several experiments with steel frames covered with leather cloth and aluminium, the all-steel B10 model was introduced. The new bodies featured re-designed rounded mudguards and the saloon, in oarticular, was considered most handsome by virtue of the narrowness of the body pillars. Mechanically the same as the B2, the new B10, together with the last of the wooden framed cars, began to break records for car manufacturing, with 500 cars a day rolling off the produ ion line into the hands of an eagerly waiting public. Altogether, from June 1921 until October 1925, a total of 107,100 B2/B10 automobiles were built, a number of them finding their way to Australia.

All the Australian $B 2$ 's that $I$ know of varied from the original examples by being imported in chassis form and being fitted with Australian bodies. They were the same from the scuttle

forward, but the remainder of the body varied in details such as door shape, seats, instruments, etc., as well as in the basic shape of the body tub itself.

Later model Australian rear drive Citroens such as the B12, Bl4 and C models, are even more unusual, as they were still bodied in this country using traditional timber framing techniques instead of the all-steel methods employed elsewhere. To the best of my knowledge, the first all-steel Citroens sold in any numbers in this country were the Traction Avant 7 models. I believe that at least one all-steel rear drive Citroen made its way to the shores of Western Australia, but it was probably a privately imported example, as would be any others.

Currently, CCOCA's membership list contains only two B2's, one being Peter Boyle's restored 1923 Roadster and the other being Jeff Harris 1922 model which is still to be restored. Others that I know to exist are a second "basket case" owned by Peter Boyle, a good semi-restored example of a very rare tourer owned by Aub Gamble near Echuca, and a semi-restored roadster owned by Darryl Tomkin in Bendigo.

Others may still exist - if you know of any, please let the club know so that both the owner and the club can benefit from the possible exchange of information on the model.

## John Couche.

## Members Cars



1923 B2 Qoadster, owned by Peter Boyle.
About 10 pm one Friday night in 1966, the casual observer might have noticed two gents roaming the streets of Melbourne in search of a 1927 Australian-bodied Rolls-Royce, which had been advertised by some students as for sale at $£ 750$. It turned out that the car was not theirs to sell, but they had another "old car" which was located at "Luigi's Garage" in Carlton. So out with the torches, and the old car was revealed as a fairly complete but very tired 1923 B2 Citroen Roadster.

Peter Boyle was one of the automaniacs in ques tion, and was very attracted to the car, particularly at the asking price of $\$ 60$. But the garage owner was not cooperative. He claimed that there was money owing on the car and would not release it. Peter was not to be deterred, so he turned up at the garage the following Saturday with five accomplices and a Fargo truck. While he and one of the accomplices engaged the garage owner
to Queensland for when things settled down. But the Boyles weren't to settle down yet - not in Queensland anyway. Two and a half years later, they came back to Melbourne, eventually buying a house in Thornbury which accomodated the family and crates. The crates stayed unopened for another five years.

If all this sounds like a prolonged period of inactivity, it should be mentioned in Peter's defence that among other things, he was constantly on the look-out for B2 bits, becoming quite well-known at the swap-meets as the bloke collecting parts for this car no-one had ever heard of. The car was reasonably complete, apart from radiator cap, petrol cap and hood, but the diff. was a mess (too enthusiastic application of the transmission brake by frevious owners?) and many parts required replacement.

In 1980, Peter acquired a partrestored 1950 Light 15 from Steve in conversation, the others hitched up the Cit. and towed it away past the open-mouthed creditor.

Peter's parents were not exactly enthused to see another car join the four already in the driveway, so it was not 1 ong before the B2 was stripped, dis-assembled and lodged in the rafters, where it was to stay for the next two years.

As they say, Peter became otherwise engaged - to Maria. The plan was to prepare the car for a honeymoon trip taking part in the section of the 1970 International Rally running from Sydney to Melbourne. But what was described as a distinct lack of parental/family help and cooperation left the car assembled and mobile but bodiless as the deadline approached and passed.

When Peter and Maria moved to Reservoir, the car was dismantled and once more elevated to the roof for another two years. The thought of the still bodiless car inspired Peter to go to night school to learn panelbeating and body construction, and he finished the course with two mudguards.

Shortly afterwards, the Boyles moved to Cairns. The B2 came out of the roof - straight into crates. It was consigned to storage and addressed


Sarda, and within three monthshad it on the road, with sprkling performance in time for the 1981 Austraction at Bendigo - registered three days before. Other Austractionists will remember Peter's deeply suntanned ankles at Bendigo - the only parts of him that had been exposed to daylight as he raced to finish the car on time.

This experience stimulated him to have another look at the B2. A usable original B2 crown wheel and pinion was found at Bamwam Extension (out of Echuca, Vic.) in a complete (?) car owned by Aub Gamble. The condition of the car is indicated by the fact that it was comfortably transported back to Melbourne on a $6 \times 4$ trailer - but the diff. still had oil in it and was in good condition.

January 1982 marked the beginning of the really serious stuff. The target was to take the car to Cit-In ' 82 at Easter in Adelaide. Some of the earlier work was unsatisfactory or had deteriorated in storage, so that almost everything - body panels and frame, chassis, engine, paint, upholstery and hood bows needed to be done.

Peter claims not to remember much about the actual restoration work from this stage on, but admits to relinquish ing all family responsitilities in a sustained burst of Citromania - eating, sleeping (not much) with the 32 .


After initial work on the chassis and frame, the engine was commenced, but once the time needed for upholstery was calculated, the all-out effort was transferred to the body. Most panels were fabricated by Peter using the originals as patterns - only about 10-15\% of trie original tin remains on the car. About $50 \%$ of the wooden frame was re-usable, the balance being made from yictorian ash, and the whole structure was screwed and glued with epoxy. Hood bows were being made by an Echuca specialist, and arrived just in time to accompany the finished and painted body, clamped to a boat trailer, to the upholsterer (Grant white in Thornbury) for complete trimming in high-grade vinyl.

Peter was not the only one to "Pass the pain barrier" during this period Geoff Whiting, one of the original accomplices, was a constant and invaluable source of both help and encouragement. One night that they were attacking the body with fervour and an electric planer, among other things, a neighbour was heard to gently inquire what they were doing. He was told "hammering the panels on to the frame" and relied "Yes, that's exactly what it scunded like".

In the month that the body was in the upholsterer's hands, engine reconditioning and assembly of the rolling chassis took place. The engine was bored out and sleeved to undersize dimensions and the original aluminium pistons machined to fit. Occasionally Peter Fitzgerald would pop in with expressions of utter disbelie that the car would make Adelaide on tilic.

New Olympic $730 \times 130$ beaded edge tyres were fitted in place of the tired Barnett-Galss originals, and the roll= ing chassis was finally mated with the body one week before Easter.

The engine was fired up for the first time at 2 am on the Thursday before Easter and road-tested, again with the aid of Ge off whiting. It sounded horrible - backfired and stalled, but made it round the block. The reason for this v!as discovered in Adelaide - detached ignition leads to two cylinders. A marked improvement was noted when it finally ran on all four.

Peter has a few finishing touches to make - door handles and a boot catch are missing and the speedo, which operates by a $V$-belt running off the tail shaft, is not working. A future project may well be the fitting of a new head which came with the car. This head, a "Super Culasse" is actually a factory-approved conversion from side-valve to ohv which, unlike that fitted to the B2 Caddy, is cross-flow. The head, priced "200 shillings" and with double chevron markings, is unused, but lacks rocker gear.

The car is a rare model in Australia The son of a former owner believes that there were only ever five sold in Meltourne. It is a deluxe version fitted with an eight-day clock and originally upholstered in crocodile pattern leather, yes, with chevrons impressed in the door flaps. The body was probably by the South Australian body

builder T. J. Richards, and the original numbered Michelin wheels and Michelin wheel nuts are still with the car. Contemporary sources indicate a petrol consumption of 7.5 litres of petrol and one litre pf oil per 100 km (the pistons are fitted with three compression rings only). As far as Peter knows, it is the only mobile B2 in Australia, although Jeff Harris in Adelaide and Aub Gamble have unrestored ones. Peter is, of course, very keen to obtain any further information on
the model or on any other cars around. The car will be trailered up to Harrietville for Austraction '83, and shortly afterward is expected to receive a set of red plates, making it legally driveable in any "Club Rally". It would seem that the only problem that Peter will have very soon is which Citroen to drive - the $B 2$, his Light 15, 2CV, ID or Safari - but that's another story!

Peter Simmenauer

## $\stackrel{\text { LeTERS }}{\square}$ ITS ADDRESS!

It is now: Automobiles Citroen, 62, boulevard Victor-Hugo, Neuilly-sur-Seine (Hauts-de-Seine)

Postal address: Automotiles Citroen, F. 92208 Neuilly-sur-Seine Cedex.

Dear Peter,
as a brief follow-up to the feature on Peter Damman's racing career in various racing Citroens (FD 6 (2)), perhaps it might be worthwhile $\overline{r e c o r d}-$ ing captions for the illustrations used as follows:

Front cover: Citroen 6 at LCCA meting at Burrumbeet, Vic., June 11, 1951 (before spinning through the rails and becoming a "pin cushion").

Page 2: Negotiating the LCCA hillclimb at Rob Roy, Vic., September 23 or November 7, 1950.
Page 3: Shooting party in the Grampians, Vic. in 1951.
Page 4: Advertising reference to the first Bathurst win in October 1950. Back cover: Set-up for the 1950 Bathurst (another photo taken during the race shows that the hub-caps remained on, but confirms that the race was run without windscreen, despite the wet conditions).
Peter is unlikely to have looked as immaculate after the race: Yours sincerely,

Bill Graham.

## NEW MEMBERS

Brian Edmonds 68 Kenneth St.
Longueville, NSW 2066
Leigh \& Annette Mason, 943 Waugh Rd. Albury, NSW 2640.
'50 Big 6
$2 \times 5 \mathrm{CV}$ s B14


FEDERATION NATICNAL SWAP MEET, BENDIGO
As in past years, CCOCA was represented at the largest swap meeting held in Australia. This meet attracts people from all over the country, and provides an excellent means by which the club can become more widely known and recognised.

Despite the warm conditions, people were out in their droves and the stand saw many enquiries, sales of club shop items and sales of motoring paraphenalia througrout the weekend.

As well as us having the opportunity to recruit new members for the club, it enables country and interstate members to renew acquaintances with the Melbourne based members who make the trip to Bendigo. It was with great pleasure that we can record having seen and talked to about twenty-five club members during the weekend.

Membership enquiries made over the weekend have resulted in at least two new members to date.

Many thanks go to Russell Wade for the use of his tent over the weekend, and to Ray and June Fitzgerald for their hospitality - bed and breakfast for a number of us and Saturday night tea for about eight.

Seen at Bendigo: Peter Boyle, Robbie and Jacqui Couche, Peter Fitzgerald, Lyle Gardner (Junee), Rex and Margaret Gercovich, Bill Graham, Peter Hughan (Ballarat), Krista Lucas, Mark Mckibbin, Leigh Miles, Gerald and Pat Propsting, Robert and Jenny Stewart (Sealake), Graham Stockfeld, Russell Wade ...


# Coming Rallies 

January 29-31, Saturday-Monday Austraction 83 - Harrietville Be there!

February 23, Wednesday
Open Night - Films. Nunawading.
February 27, Sunday
Welding workshop - 1.30 pm at the Boyle's - 35 Newman St. Thornbury.

March 2, Wednesday
CCOCA Annual Dinner - details will
follow. Break last year's record crowd:

March 30, Wednesday
CCOCA AGM. Nunawading.
CCOCA Meetings and Open Nights are held in the Coffee Shop Meeting Room at the Nunawading Civic Centre on the last Wednesday of every month except December. General Meetings include formal Club business and commence at 8.00 pm ;

Open Nights are informal "drop in" sessions when coffee and chat are usually the main attractions. Club Shop, Spares and Library are available at all meetings. Visitors are welcome.
CITRACTION '80
As you may have heard, CCOCA will be hosting the National Citroen Rally in Easter 1984, which will be held at Ballarat.

The majority of the accomodation will be at the Ballarat Inn, a worldclass convention centre reflecting the character of the gold rush days.

The Inn includes every facility from squash to swimming, and a restaurant. Accomodation can be economical lodge style or motel rooms or suites. Caravans and camping sites will also be available at a nearby caravan park.

Sites for the various events are being arranged at the moment, and a programme for the weekend will be available early next year. Stay tuned for further information.

The National Citroen Rally we are hosting in 1984 will replace the Austraction for that year.

The release of the Citroen $B X$ to coincide with the Paris Motor Show (September 30 to October 10, 1982) has been awaited with great interest in motoring ranks. Essentially, the $B X$ is the first production mode $i$ to be completely developed since Citroen became part of the Peugeot (PSA) group in 1975. The Visa (1979) would have still reflected pre-amalgamation views. Inevitably, enthusiasts have pondered whether the BX would be recognizable as a "true Citroen" or whether it would be simply a faceless corporate product.

I was able to examine a BX firsthand in the basement at 133 Quai Andre Citroen in Paris, just after the Motor Show, and the answer has to be a very definite "yes" as to the BX's continuing Citroen identity.

However, Citroen has recognized that their styling, though characteristically innovative and attractive to many as a company hall-mark, is just too advanced for some people of conservative taste. With the BX, therefore, considerable attention has been paid to marketing studies and specific customer demands, with the aim of producing a car of great strength of character, neither "runof -the-mill" nor eccentric and unable to capture sales from other makes. Again, I think they have succeeded.

Model Range. Five versions have been developed by combining the three power unit versions (BX $62 \mathrm{hp} / 4$ speed, BX $1472 \mathrm{hp} / 5$ speed and BX $1690 \mathrm{hp} /$ 5 speed) with three levels of trim as follows:
$B X$
$B X \quad$ ( Equipment Level I
BX 14 RE ) Equipment Level II $B X$ 16RS) (Intermediate)
BX 16 TRS Equipment Level III (Pallas)
Dimensions. The BX is designed to slot in between the GSA (which it will presumably replace in time) and the CX. The relationship can be seen in the table below. For the $B X / B X 14$ series, kerb weight i's actually less than for the GSA.

Tyre sizes are 145 SR $14 \times Z X / M X$ ( $B X, B X 14$ ) and 170/65-R365 TRX (BX16). Wheel track is 1.41 m (F) and 1.35 m (R). Weight distribution is 50 (F), 40 (R). Fuel tank capacity is 44 , ( $B X, B X 14$ ) or $521(B X 16)$.

Perfcrmance. The smaller engined $B X$ 's almost match ( $B X$ ) or just beat (BX 14) the GSA in top speed, while the bigger engined version tops the GSA by $18 \mathrm{~km} / \mathrm{h}$. It will also outrun the 1995 cc CX Reflex/Athena (by 2 $\mathrm{km} / \mathrm{h})$, but not the 2400 CX .

Acceleration ( $0-100 \mathrm{~km} / \mathrm{h}$ ) is orisk at 11.5 seconds in the BX 16 , with the lower powered engines taking 13.5 and 15.6 seconds respectively. Thus it matches the non-FI CX 2400 and will out-accelerate the GS in comparable models. Fuel tank range at $120 \mathrm{~km} / \mathrm{h}$ varies from $59 \mathrm{~km}(B X)$ to 700 km ( BX 16).

Construction. The body is a steel, four-seat, four door hatchback monocoque, with emphasis on safety, spaciosness, visibility, comfort, weight saving and rigidity. Weight saving is acheived through computer-aided design, special steels and the use of plastics. Self-coloured plastics are used for bonnet, boot lid, air vents and bumper assemblies. Some of these plastics will help reduce third-party injury in collisions, while the under-floor mounted plastic fuel tank should contribute to passenger safety. Front and rear screens are bonded in to gain rigidity without extra weight, and to improve streamlining. Close attention to streamlining gives an excellent drag factor ( $C_{x}$ ) of 0.34.

Engine: The range uses two basic engines, both being light alloy ohc petrol units. Both are mounted transversely ("East-West"), driving the front wheels via 4- or 5 -speed manual transmissions. The smaller unit (similar to Peugeot 104, 4 cylinder Visa, Talbot Samba and Renault 14) is of 1360 cc , developing 62 bhp DIN (BX) or 72 bhp DIN ( $B X 14 E / R E$ ).


The larger unit is of 1580 CC and it is all new. It develops 90 bhp DIN and is fitted to the $B X$ 16RS/TRS models and will probably appear later in other Peugeot group and Renault vehicles.

Both engines use replaceable wet cylinder liners. In the 1580 motor, the belt-driven camshaft operates directly on shim-adjusted cam-followers, as in Jaguar and others. Gas flow is cross-flow in the 1580 motor. Ignition is pointless (magnetic trigger). Cooling is via electric fan.

Gearbox. The 1580 motor uses a new compact 5-speed gearbox mounted on the left of the motor. The 1360 motor uses an existing gearbox of four speeds (63 bhp) or five speeds ( 72 bhp ), mounted beneath the engine and sharing a common oil supply. An "outrigger" transfer gear set is used.

Driveshafts. These are of equal length and interchangeable on the $B X /$ $B X 14$ models. They are of unequal length on the $B X 16$. Inner joints are Citroen tripod type and the outer joints are of the Rzeppa type.

Suspension: This continues to be the familiar independant hydropneumatic system with a 5-cylinder axial pump, providing self-levelling and constant road clearance, and incorporating antidive geometry. Height is adjustable from the driver's console. The front suspension uses lower wishbones and
upper gas-filled supporting and pivoting struts (like McPherson), with suspension spheres. Rear suspension is by trailing arms with pistons and spheres. Anti-roll bars are fitted front and rear.

Brakes. This is an all disc system, dua circuit, self-adjusting, with a load-sensitive compensator for the back wheels. A self-adjusting handbrake works on the front wheels. The braking system is boosted from the hydropneumatic circuit.

Steering. Rack and pinion with compliant mountings.

Comfort and Controls. The BX seems typically "Citroen comfortable" or even more so at rest, and is reported to be very relaxing and comfortable on the road, with a slightly firmer ride than other French cars. (Observer Road Test). Wind noise is reported as neglible but there is some engine noise at higher speeds.

Instruments and controls accessible to the driver appear typically comprehensive. However, the strip-type speedometer may not suit all tastes. The fresh air heating and ventilating system is of high capacity (15 second air change), especially important in hot climates such as Australia.

Front seating is widely adjustable, while the rear seats are designed to maximize leg room and allow for folding down to provide extra carrying space.

The $B X$ has now been released for sale in France and presumably in the other left-hand drive markets of Europe. It is scheduled for release in Britain in the northern autumn of 1983. There are no firm indications yet as to the possibility and timing of the $B X$ being released in Australia.

Conclusion. The BX unquestionably continues the citroen tradition of producing distinctive and technically imaginative motor cars, of great comfort and excellent road characteristics. Futuristic and yeat attractive in appearance, it will presumably help to swell even further the ranks of les amis d'Andre and to perpetuate his name.

Bill Graham.
Dimension and Performance Comparisons

\begin{tabular}{|c|c|c|c|}
\hline \& \[
\begin{gathered}
\text { GSA } \\
(S \text { pecial -UK) }
\end{gathered}
\] \& BX \& \[
(2400 \text { CX } \mathrm{EFI}-U K)
\] \\
\hline Length mm \& 4197 \& 4230 \& 4666 \\
\hline Width mm \& 1626 \& 1650 \& 1750 \\
\hline Height mim \& 1346 \& 1360 \& 1360 \\
\hline Wheel Base mm \& 2550 \& 2650 \& 2845 \\
\hline \[
\begin{aligned}
\& \text { Weight } \\
\& \text { (kerb) kg }
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\] \& 920 \& \[
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\end{array}\right)
\] \& 1370 \\
\hline \[
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\] \& 158 \& \[
\begin{aligned}
\& 155 \\
\& 163 \\
\& 17 \\
\& 176 \\
\& 17 \\
\& (d) \\
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\end{aligned}
\] \& 190 \\
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\begin{aligned}
\& \text { Acceleration } \\
\& 0-100 \mathrm{~km} / \mathrm{h} \\
\& \text { secs. }
\end{aligned}
\] \& 14.2 ( 13.8 \& \[
\begin{aligned}
\& 15.6 \text { (c) } \\
\& 13.5 \text { (d) } \\
\& 11.5 \text { (e) }
\end{aligned}
\] \& \(\left(2400{ }^{11.5} 5\right.\) s carb.) \\
\hline \begin{tabular}{l}
Consumption (a) \(1 / 100 \mathrm{~km} / \mathrm{mpg}\) \\
(b)
\end{tabular} \& \(8.5 / 33\)
\(8.0 / 35\) \& \(7.7 / 37\) (c)
\(8.5 / 33\)
\(8.9 / 32(\mathrm{~d})\)
\(7.5 / 38\)
\(7.1 / 40\)
( \()\)
\(7.4 / 38\)
d)
(e) \& \(14.1 / 20\)

$9.8 / 29$ <br>
\hline
\end{tabular}

(a) Urban (b) constant $120 \mathrm{~km} / \mathrm{h}$
$\begin{array}{llll}\text { (c) } B X & \text { (d) } B X 14 E, B X 14 R E & \text { (e) } B X 16 T R S\end{array}$

## Underneath the Arches

No, it is not the return of Flanagan and Allen. However, many of our club members hill have heard or seen tantalising references to "The Arches" in Landon, and be aware, as I was, that the location has some special "attractions"

I was fortunate in being recently taken to the Arches by "Mr Citroen" himself, in the person of the enthusiastic and effervescent Fred Annels. Having just stepped off the plane from Melbourne, the location and the time seemed to present me with an aura of the unreal, the mystical and the magical. Attribute a fair portion of that to jet-lag and general fatigue.

The Arches, as the name suggests, are located within the enclosed brick archways formed under an overhead viaduct, actually where the rail lines cross over Cornwall Road at Water 100 Station on London's South Bank. The name of an automotive electrical business which formerly occupied the site is still faintly visible over the doorway.

The Citroen associations of the area were immediately evident in the passive form of a black, dusty and definitely tired big-boot Normale, "temporarily" parked on the pavement beneath the viaduct and facing The Arches.

Fred led me through the arched dsorway and past its heavy wooden door. My eyes adjusted to the "subdued" level of lighting inside. I became aware that the vaulted space within, covering a floor area of perhaps 10 metres by 12 metres, was liberally filled with some half-a-dozen Tractions in various stat es of repair. Most appeared to be French Normales and Legeres.

A figure displaying the unmistakable garb and blackening of the exposed areas of skin which characterise the hands-on practis ing motor mechanic stepped forward and greeted Fred with the warmth and familiarity of a kindred spirit. The smiling figure was introduced to me as Bryn Hughes, partner in business with John Gillard. It seemed that John was away, having just gone over to Holland to chase up some parts. (How easy that sounds when you are in Lond on!)

As Fred and Bryn chatted about various projects, jobs-in-hand and parts, I wandered round the shop and took in the scene. There appeared to be Traction parts (grilles, bumpers, panels,
mechanicals, etc.) literally to the ceiling in odd corners, while much of the floor area was occupied by cars currently being repaired.

John, a former accountant, started the business in 1979 when, after getting his first Traction in 1970 (a 1939 Light 12 from $S$ lough), he realised that there was no one in car repairs who was looking after the needs of the Traction owner. Now John and Bryn will tackle any job, from the supply of minor parts to a complete re-build involving body and mechanicals. As well as Tractions Avant, they will deal with repairs on earlier, rear drive Citroens. Their business name id "Classic Restorations".

As if this isn't enough, the business site is the focus and principal repository for the spare parts activities of the Traction Owners Club, of which John is Spares Officer. Incidentally, John's current vehicle is a Traction Commerciale which, because of its internal capacity and its wide rear opening, is the ideal vehicle to cope with the practical transport needs of the business and for various club activities.

John is careful to point out, of course, that when he started fulltime on Traction repairs, Fred was already doing just that, for many people, on a part-time basis in addition to his regular job. Fred proved to be a tower of strength supplying parts and information for John in his early days.

It is certainly encouraging to observe the degree of support. for oritish Tractions which Classic Restorations represents, and we can only wish John and Bryn all the best.

Making our farewells to Bryn, we stopped outside the door to greet a smiling Alan. Sibley who was just alighting from his red Light 15 on some TOC business. The polished aluminium Robri spats on Alan's fron't guards caught my eye, especially with their built-in slots to act as bootscrapers. Very down-to earth (literally!) and very practical.

But by now, it was time to re-enter Fred's GS, go back to the hotel to collect my (ever-patient) wife, and for Fred to introduce us to an English pub, a pint, and a ploughman's lunch. No doubt about it, exploring these distant parts of the globe is just all hard work. Nothing more, nothing less.

Bill Graham


## LePetit Citroën

FOR SALE: 1 Citroen Roadster and 1 Citroen coupe.

If that didn't have you running to the telephone to enquire from your bank manager the state of your financial liquidity, you can't be a died-in-the wool Citroenist. Unfortunately, this "For Sale" doesn't apply to the real thing either.

Desiring these two tractions and actually owning them are not things that any Australian Citroen fancier can expect to be able to do, except in the "scale" world.

The long awaited Matchbox kit can fill part of that gap. A pastic model in $1 / 32$ nd scale, it's a relatively good representation of the marque. The detail is not of the high standard of the Heller Big 6 , but then neither is the price(\$8-9).

The Citroen model is one of a series of classic car models put out by Matchbox over the past two years. Other models in the range include the Type 35 Bugatti and the Aston Martin Ulster.

This kit can be built in either the roadster or coupe form - no doubt most model collectors would buy two and build one of each.

The model is designed to represent the current model available in the year 1939 in France. The Frenchness
is immediately noticeable by the metal dash configuration and by the fact that it is in left-hand drive. Options like Pilote wheels are fitted to the car. It is reasonably true to form except that the actual shape of the rear body section is rounder on the original than on the model, although this does not detract in any way from the kit.

Construction proved relatively easy except for the poor fit of the upper rear body section and the bonnet. In both cases some judicious filing was required to enable a snug fit to be obtained.

All bightware on the model comes already silvered, and this tends to make it look a little garish unless sections of the trim are repainted. This was especially needed on the door trims, as far too much had been "chromed". The back suspension, engine components and the exhaust system also required painting to bring them back to "original".

The kit comes with clear and easy to follow instructions for assembly, making i i a far less daunting task than the Heller kit. It has no parts to assemble in "working order", therefore requires less fine skill in building. A desirable addition to any model collection at a reasonable price.


Gearbox
Pinion shaft rear bearing 50036726.80
Output oil seals
4.55

Clutch
FTywheel bearing 4.40
Aux. shaft front bearing (pulley) 3.60
Front Axle
Outer whee 1 bearing 42565416.08
Inner universal cross 441313 26.40

Changeover driveshafts:
Labour $\$ 56$, crosses $\$ 3\}$ per shaft, plus reco. stub axles/splines/ball
and spigot if necessary. Minimum
charge per shaft $\$ 89$.
Rear Axle
$\begin{array}{rrr}\text { Rear Axle } \\ \text { Tapered roller bearing: } L 15 / 11 \mathrm{BL} & 8.80 \\ B 15 / 11 B / 6 \mathrm{cyl} & 8.20\end{array}$
Brakes

Rear brake hose 11BL/11B only 12.55
Gaskets
Head 4 cyl.
27.65

Rocker cover 4 cyl. POA
Manifold 4 cyl.
POA
Exhaust flange 4 cyl.
Sump set 4 cyl.
3.69

Exhaust pipe/muffler 6 cyl.
1.00

Timing case 4 cyl.
2.10

Rubber Ware
$\begin{array}{lr}\text { Rubber Ware } \\ \text { Big boot top rubber (grey) } & 10.27 \\ \text { Big boot bottom rubber } & 5.50\end{array}$
$\begin{array}{ll}\text { Big boot bottom rubber } & 5.50 \\ \text { Door seal rubbers (set) } 11 B L / L 15 & 4.60\end{array}$
Door seal rubbers (set) 11B/B15/6 5.00
Windscreen rubber (Alum. Frame)
11BL/L15 3.80
11B/B15/6 4.00
Filler cap (grey) post '52 POA

Electrical
$\frac{\text { Electrical }}{6}$ volt brake lamp switch 2.70
12 volt wiper motor mount (exch.) 16.50
Cooling System
$\begin{array}{ll}\text { Radiator hose }(\text { pr. }) & 20.34 \\ \text { Water pump overhaul kit } & 35.60\end{array}$
Steering
Rack endcap L.H.S.
15.85

Body Fittings
Citroen name plates for 11BL
Seat cloth l1BL (orig. pre 1952)100.8C
Headining cloth 11BL only (grey) 47.50

Tools
Lower bell joint extractor for 4 cyl. Traction - only $\$ 53$ each.

* A good supply of body rubbers have been received. These are in a longlasting black rubber compound and will keep well. It would be advisable to buy now for the shelf or whatever, as it may be a long time before we can place another order for these items, and the price is unlikely to be so good.

POA $=$ part temporarily out of stock. Prices for new stock may be higher. Driveshaft prices depend on condition of shafts submitted for reconditioning. If you wish other parts to be ordered, please say so. "The difficult we will do immediately, the impossible will take slightly longer".

## Please note:

* Do not send money with an order; if we sell out we will only have to return it. You cannot be sure of pcstage costs which also are charged to you.
* Only orders on official forms sent to you in each magazine are recognised. Emergency phone calls via a Committee member will be considered if the car is your only means of transport and the lack of a part is keeping the car off the road. Restoration delays are not emergancies no matter what timetable you are working to. So do not promise your unfinished cars for weddings etc. I probably will not be able to help you as it is unfair for me to have to go chasing all over Melbourne to locate the single part you are missing *With limited capital, satisfyirig everyones needs takes time. There are people who have had to wait for parts for two years. Those of you who have submitted order recently - please be prapared to wait, you will get your parts eventually.

POA = part temporarily out of stock. Prices for new stock may be higher. Driveshaft prices depend on condition of shafts submitted for reconditioning.
If you wish other parts to be ordered, please say so.
"The difficult we will do immediately, the impossible
will take slightly longer".

## CLUB SHOP

Contact: Rotbie Couche
15 Mitchell Ave.
Boronia 3155
Ph. 7626856
Maria Boyle,
35 Newman St.
Thornbury 3071
Ph. 4803560 (A.H.)
Windcheaters and T-shirts:
*Supply your own windcheater or T-shirt and we will print your chosen design for $\$ 2.00$ per garment OR
*Order a T-shirt, printed from our stock for $\$ 6.00$ OR
*Windcheaters can be ordered, but as stock is not held, price will depend on current price of garment.
PLEASE SPECIIFY SIZE, COLOUR AND DESIGN WHEN ORDERING.

Metal Grille Badges: Out of stock; new stock soon.

Postcards:
Pack of 5 assorted designs (Citroen)
Cost: \$2.50.
V.D.C. Restoration Directory. 1980 ed. cost: \$2.00.

Front Drive Back Issues:
Cost: $\$ 1.00$ each. (If issue requested is out of print, a good photocopy will be supplied)
Citroen 2CV 194.-1982 (Brooklands series of road tests). Cost: $\$ 9.80$.

Windscreen Stickers:
club emblem. Cost: $\$ 1.50$
Cloth Badges:
CTub emblem in blue on white oval background. Cost: \$1.75.

Lubrication Charts:
High quality reprint of original
Traction "Oil and Grease" chart.
Cost: \$1.00.
Pamphlet Boxes:
These will hold all Front Drive issues published to date, with room for more, or about two years of almost any other A4/Quarto sized magazine. Available in:

- Black cloth binding, library quality, $28 \mathrm{~cm} \times 8 \mathrm{~cm} \times 23 \mathrm{~cm}$. Cost: $\$ 4.95$.
- Cardbuard "Foldaway"
$23 \times \mathrm{cm} \times 8 \mathrm{~cm} \times 23 \mathrm{~cm} . \operatorname{cost}: \$ 2.50$.
Both can be supplied with free Front Drive spine label, or plain.


## Wine Glasses:

Have you managed to break any of your Citroen wine glasses yet? Small no. of replacements available individually. Cost: $\$ 2.50$ ea.

All prices plus postage and packing.

## CLASSIFIEDS

FOR SALE: 1954 Big 15. Excellent orig. condition. Black, tan upholst. No rust. 6 months reg. Needs tyres only for RWC. $\$ 2,800$.
ALSO: 1954 Big 15 for spares or restoration. Motor and gearbox very good, body fair - some rust. $\$ 650$ complete. ALSO: Gearbox with good CWP. \$250. Light 15 front end with driveshafts, gearbox casing and other bits. Offers. Geoff Thomas, Korumburra Rd. Warragul South, vic. 3820. Ph. (056) 261381.

FOR SALE: 2 CV engine 375 cc , running. \$120. Mark McKibbin, 1 Alexander St. Box Hill 3128. Ph. 8782410.

FOR SALE: Light 15 gearbox with CWP intact in usable condition. $\$ 300$ ONO. Apply Gerald Propsting, 18 Bellara Drive, Mooroolbark 3138.

WANTED FOR 1951 11BL: Speedometer and gauges, steering wheel, headlights,
bearing extractor $k$ it and good grille.
Bob Shackley (062) 549171 or write
P.O. Box 1592, Canberra City, ACT 2601.

WANTED: parts or information leading to for 5 CV - Citie headlights, oil filler and dipstick, dash instruments. Information, photographs, plans etc. are needed to help build a boat-tail style body and hood. Contact
Frank Rodwell, 15 Wooran St., Cooma, NSW 2630.

FOR SALE: 1926 Citroen B14F Roadster.
Two-thirds restored, 5 brand new
$730 \times 130$ Dunlop tyres. Complete
less clock. B Lawson, 523 The Parade, Magill, S.A. 5072. Ph. (08) 319019.


