

# FRONT DRIVE

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WITH THIS ISSUE

AUSTRALIA'S NATIONAL MAGAZINE FOR CITROËN OWNERS AND ENTHUSIASTS

**CHRISTMAS 97**  
**VOL 21 ISSUE 4**

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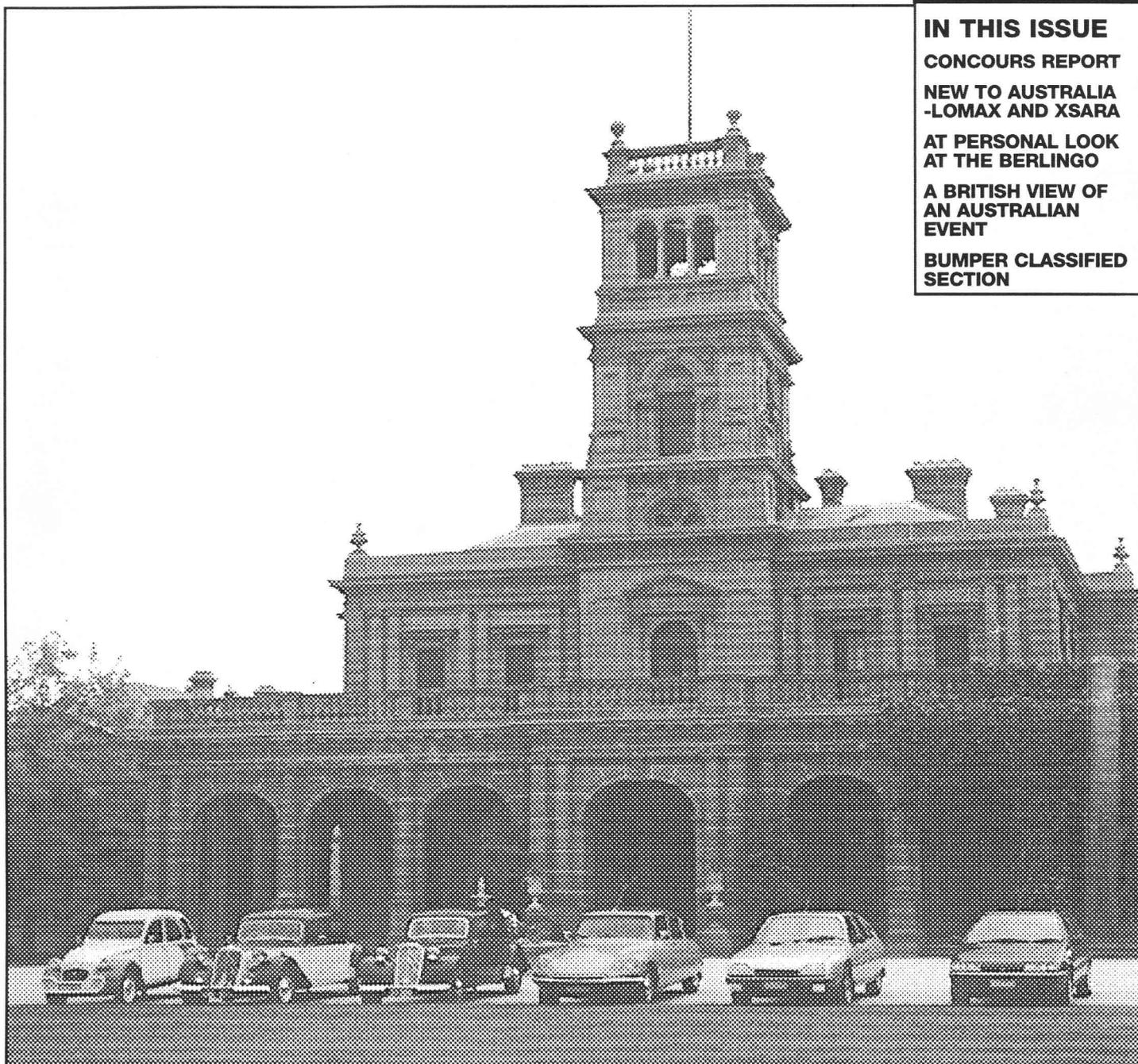
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-LOMAX AND XSARA

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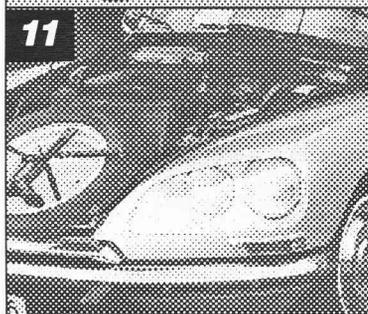
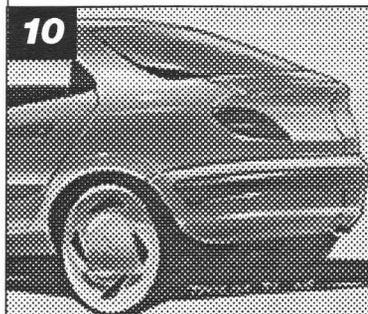
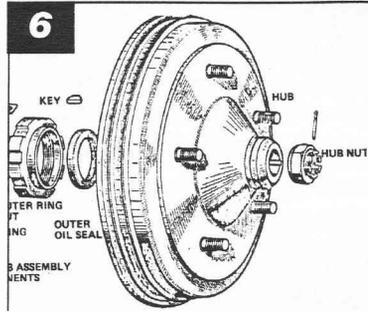
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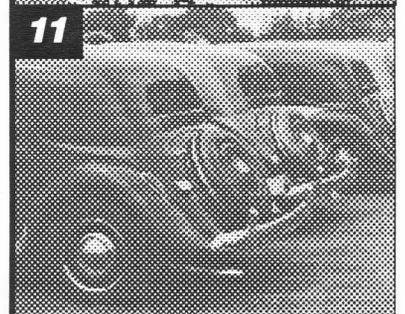
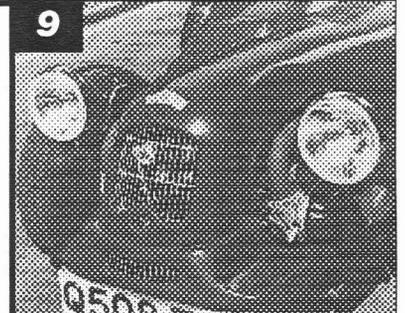
# FRONT DRIVE

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### NOTE NEW POSTAL ADDRESS

#### CITROËN CLASSIC OWNERS CLUB OF AUSTRALIA INC.

The Club's and Front Drive's postal address is **P.O. Box 52, Deepdene Delivery Centre, Victoria, 3103.**

Our e-mail address is [ttp@tmx.com.au](mailto:ttp@tmx.com.au)

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The views expressed in this publication are not necessarily those of CCOCA or its committee.

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Annual Membership \$30  
Overseas Postage Add \$9

**CCOCA memberships are due on the 25th of March each year and run until the following March.**

#### CCOCA MEETINGS

Every fourth Wednesday of the month, except December.

Venue:- Canterbury Sports Ground Pavilion, cnr. Chatham and Guilford Roads, Canterbury, Victoria. Melways Ref 46 F10,

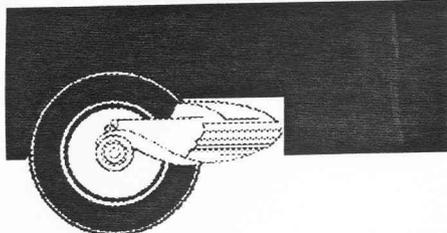
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# from the desk

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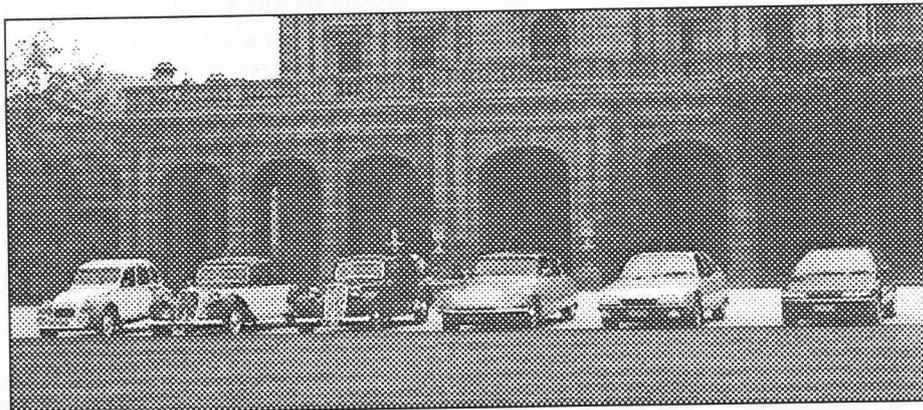
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See your soon - President Pete

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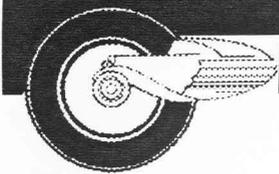
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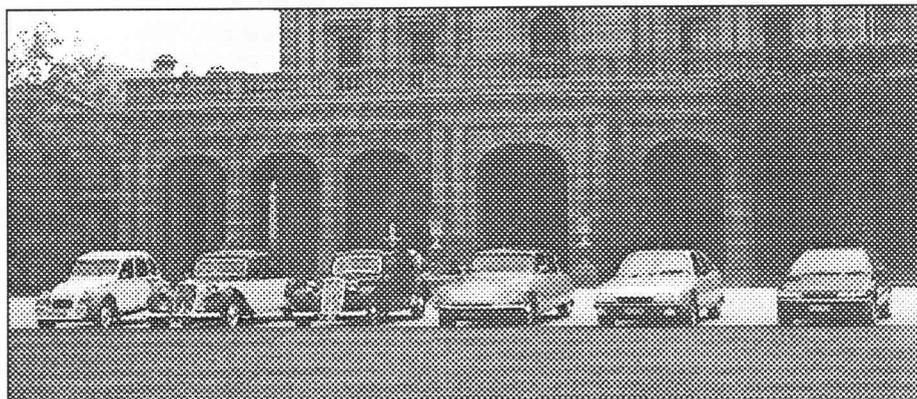
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# a-tractions

## NOVEMBER

### NOVEMBER 21, 22 & 23rd

The Festival of St Arnaud is a celebration of the only Australian town named after a Frenchman – he was a Marshall in the army of Napoleon III. CCOCA has been invited to participate in this celebration of Frenchness. The event will include a Rally of Veteran and Vintage Cars and the presence of classic French cars will enhance the 'French connection'. The whole thing starts with a cavalcade of cars as part of the Street Pageant on the Friday evening at 6:00pm. Further details in the next issue of 'Front Drive'.

Wednesday 26th General Meeting at the Canterbury Sports Ground Club Rooms starting at 8pm.

### SUNDAY 30th

Rob Roy Historic Hillclimb Historic meeting featuring Citroën. This will also serve as a BYO picnic Christmas Party for CCOCA, or alternatively food and refreshments are available on site.

To find Rob Roy use Melways reference Map 264 K9 It is off Clinton's Road, Christmas hill, opposite the entrance to Sugarloaf Reserve

Gates open at 10.00 am. Entry cost is \$10.00 per person of \$20.00 per car load.

## JANUARY 1998

### AUSTRALIA DAY LONG WEEKEND JANUARY 23 - 26

Discover Central Victoria Tour. Experience the delights that Central Victoria can offer – The mineral spas and lavender farms of Daylesford, our heritage in Castlemaine along with a superb private motor museum. Historic Bendigo. This leisurely tour only covers in total less than 450kilometre in 4 days. It will be very easy on both you and your car. Keep this weekend free and full details on departure times and so on will be in the next magazine.

### WEDNESDAY 28ND

Traditional CCOCA Twilight Picnic meeting at the Canterbury Sports Ground Club Rooms. Please note that the start time is 7.30 pm – half an hour earlier than usual. Bring along you dinner and the family to take advantage of daylight saving at its peak. BBQs available.

## FEBRUARY

### SUNDAY 8TH

Day trip to the Mornington Peninsula. We gather at the MacDonalds at the corner of Springvale Road and Wells Road, Melways 93 E7 at 10 am. We then travel down to the famous Heronswood Estate to view these beautiful gardens with a spot of morning tea. This will be followed by a tour of the some of the Peninsula's finest wineries with a BBQ lunch along the way BYO food and refreshments.

### WEDNESDAY 26TH

General Meeting at the Canterbury Sports Ground Club Rooms starting at 8 pm

## MARCH

### SATURDAY 7TH

Dinner at Les Halles in Swan Street. Richmond in Melbourne See next edition of Front Drive for full details

### WEDNESDAY 25TH

Annual General Meeting for CCOCA. Canterbury Sports Ground Club Rooms. Starts 8pm.

## CCOCA CHRISTMAS AT ROB ROY SUNDAY 30TH NOVEMBER

Come along and enjoy some Christmas cheer at the famous Rob Roy Hillclimb.

This particular event features historic and classic cars. You see some vehicles used in anger that you only ever expect to see in museums. The likes of Bugattis Alvis's etc.

This year will feature Peter Brock, a display of pre war Bentleys, Replica GT 40 display, a one of it's kind Bugatti Type 32 designed for the 1923 French Grand Prix with a wild aerodynamic shape. And of course a display of Citroëns put on by CCOCA.

If you haven't been to Rob Roy, it is in a stunning setting full of bellbirds perfect for a picnic.

Bring along your Citroën, of course, to help promote the Club and enjoy a fantastic day out with the family. See listing for details. RSVP Peter Fitzgerald

## We have a new Activities Officer – Welcome Jay

Jay Liebowitz has accepted the position of Activities Officer with CCOCA. He joins the committee with a wealth of experience gained in other clubs and drives a Xantia and a DS. The committee looks forward to Jay enthusiastic and fresh input to the Club's activities.



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and leave with 2 return tickets to Paris\*

\*Offer ends 31st December 1997

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# TECHNICALLY

## speaking

# OF DOUBLE YOKES, CARDANS AND SPIDERS.

This article should be considered in conjunction with the notes written by Mel Carey recently relating to the correct use of the Club's Spare Parts and with the Workshop Manual. It does not replace the Manual, merely provides supplementary information.

The success of the introduction of volume - produced front wheel drive cars during the 'twenties and 'thirties was dependent to a large extent on the availability of an efficient and reliable means of transmitting the drive to the front wheels.

The problem of driving through a wheel that is also steered and sprung has exercised the minds of engineers over many years. One can, of course, drive through fixed front wheels and steer with the rear - a solution used for most fork lift trucks, but hardly suitable for even moderate speeds, and in any case, why not turn the driver's seat around and drive the other way? The advantages of front wheel drive in terms of stability, traction

and space utilisation have been recognised by most manufacturers, eventually, and the development of reliable front driveshafts has been vital to their success.

What is the problem? A typical driveshaft in a fwd car fitted with independently suspended wheels [such as a Traction] consists of three shafts. First is the gearbox output shaft, which is fixed relative to the hull, but is free to rotate. Second, the stub axle in the wheel hub which moves relative to the hull and also rotates and last the shaft that joins the first two, via universal joints.

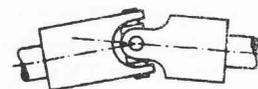


FIG.1. SINGLE HOOKES JOINT

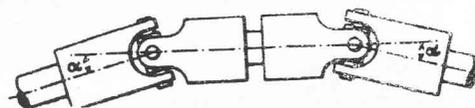


FIGURE 2. THREE SHAFT SYSTEM USING TWO HOOKES JOINTS

As the wheel moves up and down over bumps and/or is steered away from the straight ahead position, these shafts take up various angles to each other. The most common means of transmitting power between two shafts that run at an angle is to use a 'Hookes' universal joint. [Fig 1.] This is the type that is almost invariably fitted to both ends of the prop-shaft of front engine/rear drive cars and consists of two yokes at 90degrees, coupled by a cross.

One unfortunate characteristic of the Hookes joint is that, as it runs at an angle, the output speed increases and decreases during each revolution, even though the input speed may be constant. The greater the angle, the higher the speed variation. Two such joints are able to be used in a conventional prop-shaft [Figure 2] as this shaft system only runs at angles in one plane [vertical] with the input and output members substantially

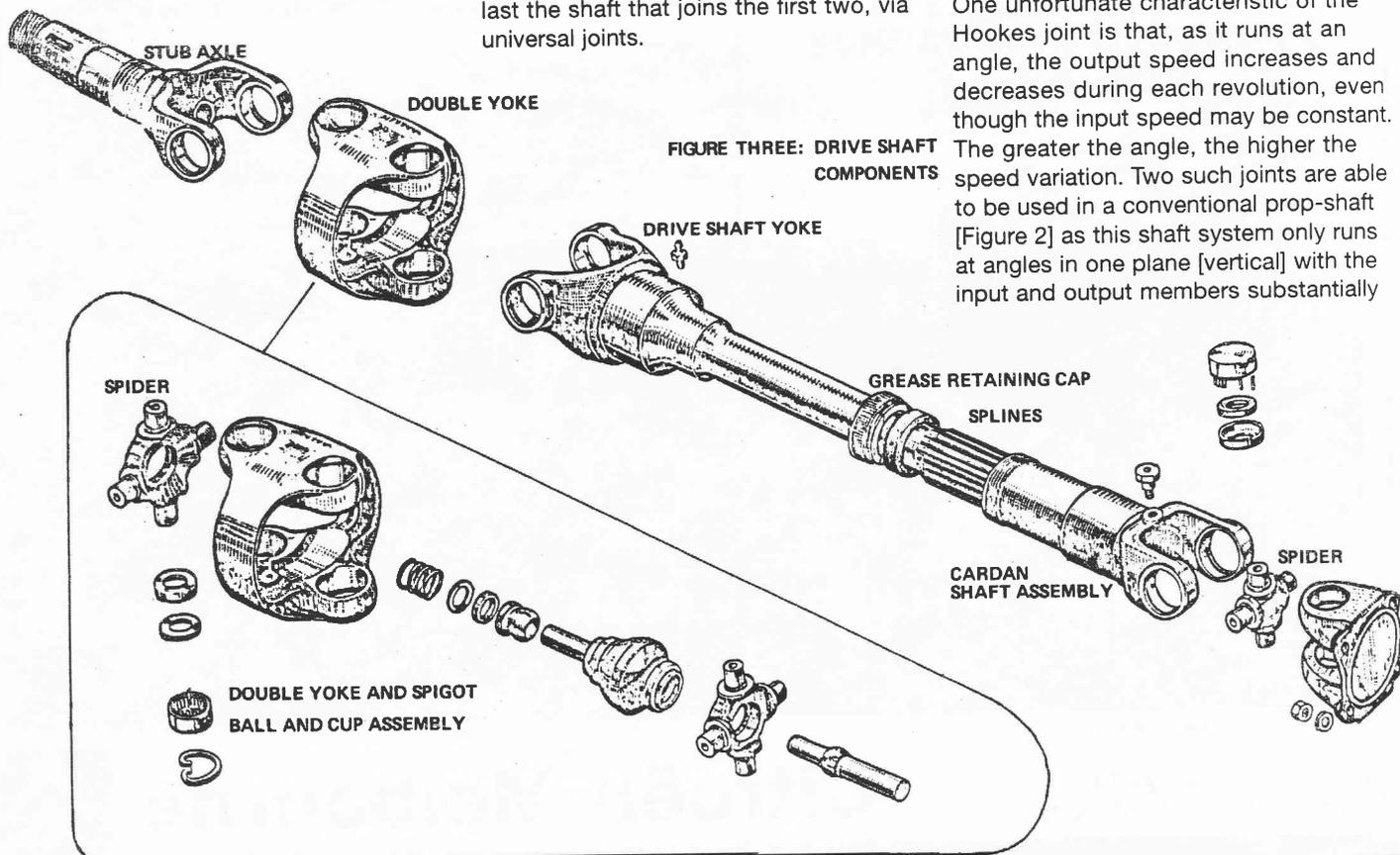


FIGURE THREE: DRIVE SHAFT COMPONENTS

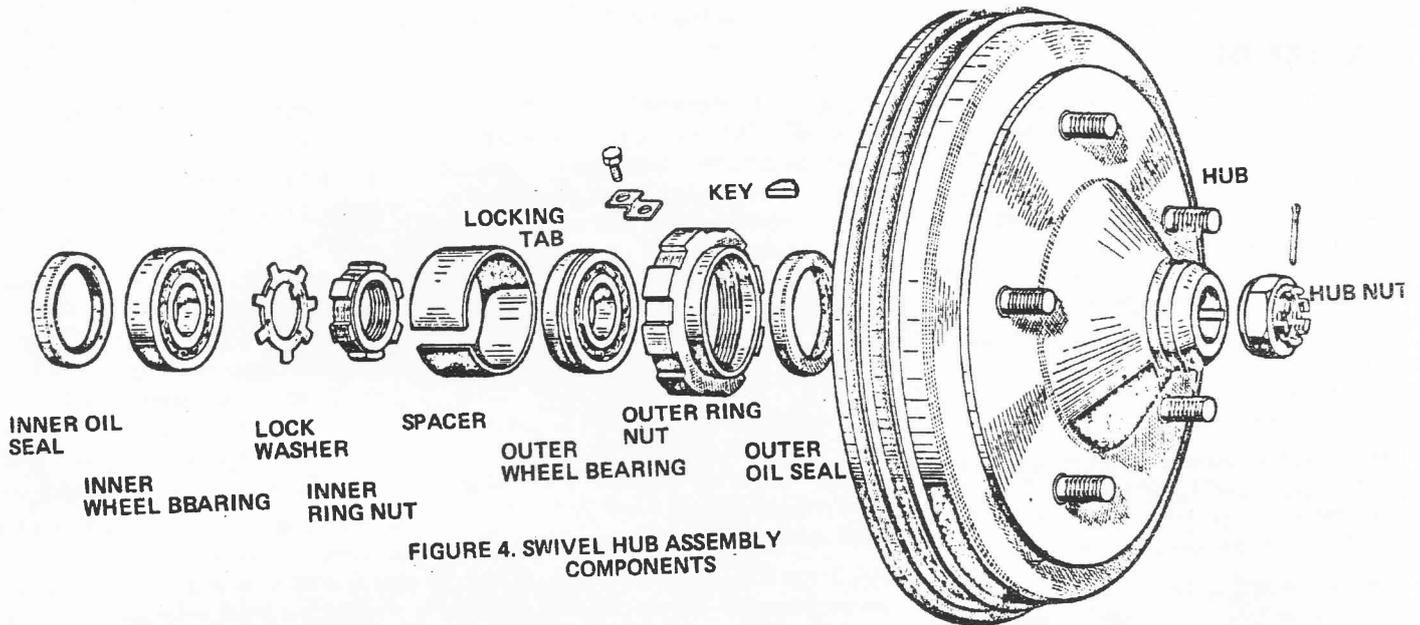


FIGURE 4. SWIVEL HUB ASSEMBLY COMPONENTS

parallel. By correct phasing of the two joints, the speed variations can be arranged to be self cancelling.

In a fwd driveshaft, however, the output shaft [the stub axle] moves in two planes - vertically during suspension movement and horizontally about the steering axis during steering. If single Hookes joints are used, then the speed variations during rotation would give unacceptable vibration and kickback through the steering column during cornering under power. Despite this drawback, the early 2CV used such a system due to its simplicity, lower cost and the vehicle's minimal power.

The solution to the problem is to use an outer universal joint that does not produce speed variations during rotation - a constant velocity joint. Many types of CV joints have been designed and the Traction was fitted with most of them during the prototype and early production stages.

The design eventually adopted used Hookes joints back to back with a centralising spigot ball and cup as the outer CV joint and a single Hookes joint at the gearbox [inner] end.

A sliding splined coupling at the inner end accommodates changes in driveshaft length during suspension movement 'All good things come to an end' - Griffith farmer. And so do Traction driveshafts, usually deteriorating until finally crying 'enough!'

#### Problems encountered include:

1. Shearing of hub keys - rendering the car immobile.

2. Excessive wear of universal joint cross bearings causing vibrations, snatching and clonking on lock. If allowed to continue, this can lead to breakage of the universal joint yokes with dramatic consequences, ie the car is immobile, again.

3. Wear of splines causing noise, snatch and vibration.

#### REPLACING DRIVE SHAFTS

The first point to be made regarding replacement is that it is impossible without the use of a number of special tools, namely: 38mm or 1" AF socket, Hub puller, Outer wheel bearing extractor [if the bearing is tight on the shaft], Inner ring nut spanner, Lower ball joint extractor.

Second point is that it helps to read the manual before getting your hands dirty.

#### REMOVAL.

1. Slacken hub nut [38mm socket], remembering that the threads go in different directions on each side.
2. Jack car under lower link arm and just slacken 4 inner universal coupling bolts [14mm].
3. Remove road wheel.
4. Remove brake drum using puller.
5. Unscrew outer ball race slotted ring nut [using proper tool if available or by drifting with square ended bar] after removing small lock tab.
6. Withdraw outer ball race with extractor, if necessary. Have seen somewhere that an extractor can be improvised from two large exhaust clamps, but jury-

rigged tools should be used with care as the pulling lip on the bearing is rather fragile. Remove distance piece and as much grease inside the hub as possible to reveal the inner ring nut.

7. Turn back the locking tabs of the inner ring nut and assemble inner ring nut spanner on the stub axle. Next step is to firmly prevent the drive shaft from turning as the inner ring nut can be reluctant to budge. If the special tool [1830T] is available, fine: if it is not, then select first gear and have a helper prevent the gearbox mainshaft from turning using an adjustable spanner on the starter dog. Again, unless the wrong side shaft has been fitted at some time, right hand shafts have left hand threads and vice versa, for the inner ring nut.

8. Separate swivel hub assembly from lower link arm by removing lower ball joint using extractor.

9. Separate steering arm from tie rod end.

10. Unscrew sheet metal grease retaining cap from spline coupling and disengage driveshaft/swivel hub assembly from cardan shaft by swinging it outwards.

11. While a helper supports the swivel hub assembly, carefully drift the driveshaft inwards through the inner wheel bearing with a copper hammer.

12. Prise out inner oil seal and drift the inner wheel bearing outwards through the hub bore.

13. Remove cardan shaft assembly from gearbox flange.



## ASSEMBLY

If fitting secondhand/reconditioned driveshafts, examine them and check that stub axle tapers are not scored, that stub axle keyways are not chipped or enlarged, that the splines are reasonable and threads are OK. Determine which shaft is for which side of the vehicle and check the fit of the stub axle taper in the mating taper of the relevant drum hub. This step, although time consuming, is essential if sheared keys are to be avoided in future.

Lightly blue the stub axle with engineers blue and fit into hub. The key need not be fitted but locate the stub axle as it would be if the key were present.

Tighten hub nut, then unscrew and check that outer face of the hub protrudes by a small amount from the shoulder of the small diameter stub axle taper. [If it does not, find another hub that does!]

Remove hub carefully so as not to disturb the blue markings on the bore. There should be continuous contact over bands

at both ends of the bore. If not, then lightly lap the tapers together using fine grinding paste and repeat bluing procedure until the hub is well seated. After lapping, clean both tapers with meths until wiping with a tissue produces no dirtying of the tissue.

Reassembly, is basically a reversal of the dismantling procedure, but a few points should be noted.

1. The cardan shaft/gearbox flange bolts have a habit of working loose. When assembling, clean the threads thoroughly with a degreasing solvent and apply Loctite, Grade 242 before tightening.
2. Fit new inner and outer oil seals and wheel bearings. You do not want to go through all this again for the sake of a few dollars.
3. Pack wheel bearings and oil seal recesses with a multi-purpose lithium-based grease, such as BP Energrease L2. The bore of the hub between wheel bearings should not be packed with

grease, but should have a moderate coating, only.

4. Do not use a locking washer under the inner ring nut - just tighten as much as possible.

5. When engaging splines of driveshaft into cardan shaft, coat the splines liberally with a grease containing molybdenum disulphide [such as BP Energrease LMS 210]. To ensure constant velocity it is essential that one axis of spiders in the outer universal should line up with one axis of the spider in the inner universal joint.

6. Always fit new keys between stub axle and hub. These are a fairly common general engineering item and can be obtained at most engineering houses. Try to buy keys wider than required, then reduce width by filing until the key is a snug fit in both stub axle and hub.

7. Tighten hub nuts to 216lbft and fit new split pins.

Roger Brundle.

# classic style



Limited Edition, high quality, Lacoste style polo shirt with and embroidered Traction Avant motif of around 10,000 stitches - so it is very detailed.

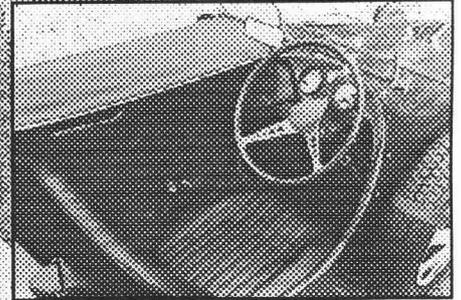
Perfect for that special Christmas gift

Available in white or mid blue (similar to the blue in the early Citroën logo).

Sizes available: S, M, L, XL

Available from CCOCA Shop A\$35 plus postage if required





## Lomax AT AUTO NURSERY

The smart money was at Auto Nursery for a technical evening for CCOCA cognoscenti on Wednesday 27 August. The two topics explored were: a new, easier technique for re-gassing suspension spheres on hydro-pneumatic Citroëns; and the availability of the Lomax kits in Australia to create exciting sportscars based on the 2CV chassis and mechanicals. Guy Nauvaud who, with his wife Janine, is proprietor of Auto Nursery - and potential new CCOCA members - made the technical presentations.

The pressure of compressed nitrogen above the flexible diaphragm in suspension spheres varies, with model and application, between 25 and 70bars. Guy pointed out that a new sphere, charged at 70bars [about 70 atmospheres or roughly 1,000psi], will go down to 45bars in about two years, or roughly 30,000kms.

From perhaps 2 to 4 years [say 50,000kms] pressure will drop to 15bars and re-gassing is definitely necessary. Below 15bars [10 for an accumulator sphere], it is too late and the sphere cannot be re-gassed. In the normal method of re-gassing spheres, the sphere is removed from the vehicle. Indicative prices might be: re-gassing, \$25 each, plus if necessary removal and refitting, travel to site, etc. - all up maybe \$40 each.

The new technique involves fitting a special re-charging valve to each sphere.

This process then enables sphere pressures to be checked without removal from the vehicle [very re-assuring to prevent sphere damage and expensive replacement], with re-gassing as necessary.

The special valves from Auto Nursery cost under \$30; D-series cars are \$29 per valve and BX, CX and G-series are \$28 each. Checking and re-gassing is then \$35 per sphere.

Piece de resistance for the evening was the Lomax. Started in the early 1980s, this attractive kit involves in essence, unbolting the body from a 2CV chassis and bolting on a pre-coloured Lomax GRP body kit and accessories to match your tastes and budget. Lomax estimates that the DIY amateur with readily available tools could effect the transformation in 45 - 50 hours, starting with a fully prepared chassis and a full kit of bits. If desired, a Lomax ladder chassis can be used. Auto Nursery is now Australian agent for the Lomax kits and is currently seeking road approval from the authorities.

Donor cars can be 2CV, Dyane 6 or Ami 8. Model designation derives from the number of cylinders, number of seats and number of wheels, eg 224 is a 2-cylinder, 2-seater with 4 wheels. Most intriguing is a three wheel version [223], in which the

left hand rear suspension is turned inwards and extended [factory exchange] so as to carry a single rear wheel in the central position. For the gung-ho, how about the 424? This uses the Ami Super chassis with the 4-cylinder GS-type motor and introduces the possibility of a more than doubling of the engine capacity over the basic twin-cylinder cars and nearly doubles the horsepower!

Normally set-up the cars provide for 'light travel' for two adults, but a 2+2 configuration is also available on all models. Other options include aero or full fold-down windscreens, doors, all-weather equipment and a rear luggage rack for extra carrying capacity. At this stage, a 224 in attractive British Racing Green finish is being assembled on the factory floor.

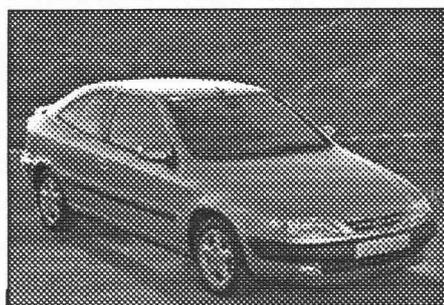
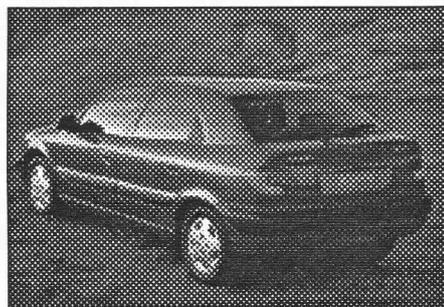
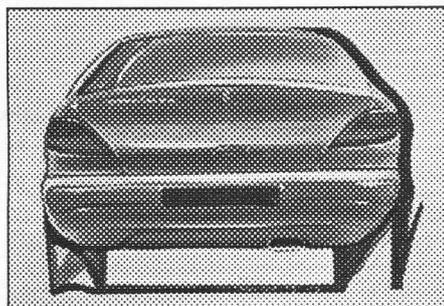
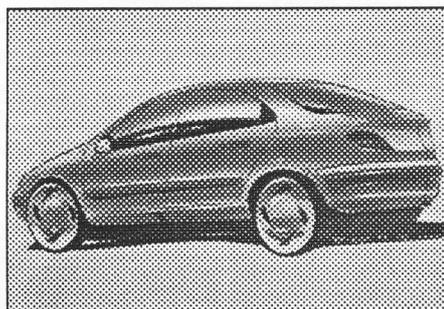
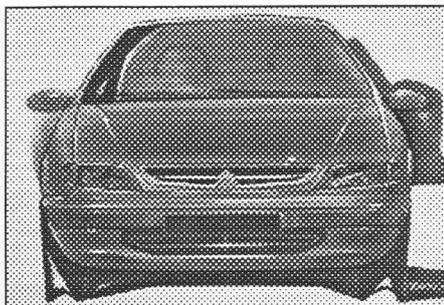
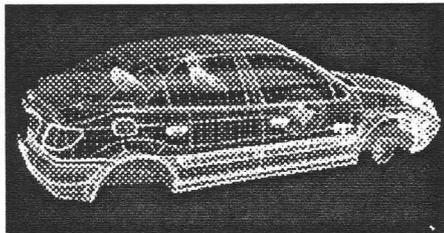
Interested parties are asked to form an orderly queue [perhaps with flying goggles, helmet and long white scarf at the ready] outside Auto Nursery, 34 Malvern St., Bayswater, 3153. Alternatively, you can ring and talk to Guy on [03] 9720 9344.

Care may be necessary if the queue should extent the kilometre or so into nearby Bayswater Shopping Centre!

Naturally, the Club extends its sincere thanks to Guy for opening his workshop after hours.

Bill Graham, reporter at large.





### CCOCA, in the driver's seat (not driving, just posing at the Motor Show)

Upon hearing that I would be in Sydney when the Motor Show opened, President Pete prevailed upon me to review the new Xsara, being unveiled in Australia at that very time. Me?!? Review a new car?!? Immediately, my head began to swim with images of my cool self "hooning" about at Sandown (or whatever Sydney has instead) in a gorgeous, brand-new sex machine. I accepted in a flash!!

Funny how fantasy and reality so rarely coincide. I presented myself on Friday night, cardboard camera in hand, to M. Paul Playonnet of Ateco, for a quiet discussion instead. Not quite the epitome of the cool automotive reporter, but there you go...

OK, so I sat, I didn't drive, and it was the 5-door hatch, not the coupe.

Undeterred, I measured its headroom, legroom, seat comfort and boot space. I took photos and I compared it with its big sister Xantia, cousin Peugeot 306, and, just quietly, with the most beautiful car at the show (Ah Luigi Fix Again) but I digress. Here we go, thrillseekers...

#### IMAGE

If Xantia is a lithe modern Goddess, Xsara is a cute cherub. She doesn't quite have the elegant line of her older sister but she's sweet. A chubby hip line made it hard for this viewer to take the 5-door seriously, but this will be resolved in the coupe, which (from the photo only, of course) will be a stunner. Paint colours will be stylish in the usual dark metallics, and the front and rear views are very attractive.

#### SPACE

The 5-door hatch is a practical 4-seater with a compact, easy-to-park body. The cabin has adequate, but not generous, driver headroom, and comfortable front seats with enough leg, elbow and gearstick space. That is, your left hand is close to your passenger's thigh but there's no need for harassment during a fast gearchange. Rear headroom is adequate for a car of this size, legroom a tad squeezey, but acceptable. (It should be noted here that Stephen is most definitely on the taller

side of the six foot mark Ed.) There is a large, usable and flexible boot and hatch configuration.

#### INTERIOR

The rear doors are a sculptural delight. The outer door is way wider than the inner passenger opening, so a luxurious overlap occurs which is truly sensuous. On the other hand, the fabric seats with a printed pattern of crushed velour left me somewhat cold. Comfortable? Yes. Pretty? No. The overall grey interior is pleasant, though. The dash is cleanly laid out and easily understood, the instruments a pleasure to read. Best of all, there are no gauges hidden behind the steering wheel!

#### VIEW

View out of the car seemed good all round. As with most hatches, there is a reasonable chance of locating the rear end for parking. The side mirrors on both doors are large and clear.

#### PRICING

Pricing was vague at this early stage. M. Playonnet quoted a range of "around \$30,000", when she becomes available in '98. At that price Xsara sounds slightly dearer than her nearest rival, the Peugeot 306. However, despite its low quote price, the Pug moves very quickly into the thirty-something range when you start to add the whistles and bells. The Xsara as presented was fully equipped with whistles and bells.

#### SUSPENSION

It's a Citroën without hydraulic suspension! Guess we all have to wait 'til we drive it to see whether we care.

#### SAFETY

Bags, of course. Guess who forgot to ask about ABS?

#### HIGHLIGHTS

The car feels solid and strong. Generally a goodlooking car, with beautiful back doors. That upholstery will take a bit of time to accept. A good buy at \$30,000.

Stephen Bartlett

*(Despite not owning one, Stephen Bartlett is a part-time Citroophile with a bias toward a '73 DS. He may be overstating the importance of hydraulic suspension.)*



# 1997 Citroën Concours d'Elegance



Once again this year CCOCA joined with Citroën Car Club of Victoria for the Annual Concours d'Elegance. After the great success of 1996 when we took over most of Swanston Walk in the Melbourne CBD, it was decided to return to the bucolic environs of a National Trust property. The Werribee Park Mansion on Melbourne's south western outskirts was chosen.

Peter Fitzgerald had volunteered to do most of the organising for the event, both in the lead-up and on the day - although on the day there were a number of helpers from both Clubs. Not least in the list of helpers were Peter's parents, Ray and June. When I rolled in, there was June on the gate providing directions on where to find Ray. Ray took your money and headed you to the appropriate spot on the edge of the State Rose Garden. I must confess, that as the roses were not yet out, despite promises to the contrary, the cars made a rather better showing than the roses.

Some suggested that the cars were rather spread out around the display area - and as someone who undertook a fair deal of walking on the day, I have to agree - but you always have the problem of the cars either being too far apart, or too close together.

Having organised the layout of parking and arranged for the judges to start judging. It was time for lunch - hooray! Unfortunately, as Sue Bryant, Colleen Carey and I made our way to the bbqs, it decided to start raining - not too much, but enough to put a dampener on the day. By the time we were lunching things had cleared.

As we surveyed the grounds, there were other little groups of people sitting on the sward, grazing too.

Judging complete and raffle tickets sold it was time to round-up the troops for the prize giving. That proved particularly difficult as a couple of friends of mine, Will and Darren, had decided to show off their Fiat Topolino and it was very difficult to get the Citroënists away from this Charleston-painted pre-war mouse.

Peter and the immediate past President of CCCV announced the names of the lucky winners and it was time to pack up and head back to Melbourne. By the time we got under way the rain was pouring down and driving the Westgate Freeway was a more than usually difficult event. Thanks to everyone who helped on the day - Ray and June Fitzgerald, Sue Bryant, the judges, Mel Carey, Steve Bartlett, Kirk Kirkcaldy, Ferdi Saliba, Yves

*Above: Centre of A-Traction ( the centre traction) was the Class and Outright Concours winning Traction owned by Gerry Propsting*

Schieseck and Rob Little, and of course to Peter for all his input and to our sponsors:

**We wish to thank the following sponsors for helping to make the 1997 Concours d'Elegance a success**

**Ateco  
(Citroën Australia)**

**Melbourne Citroën**

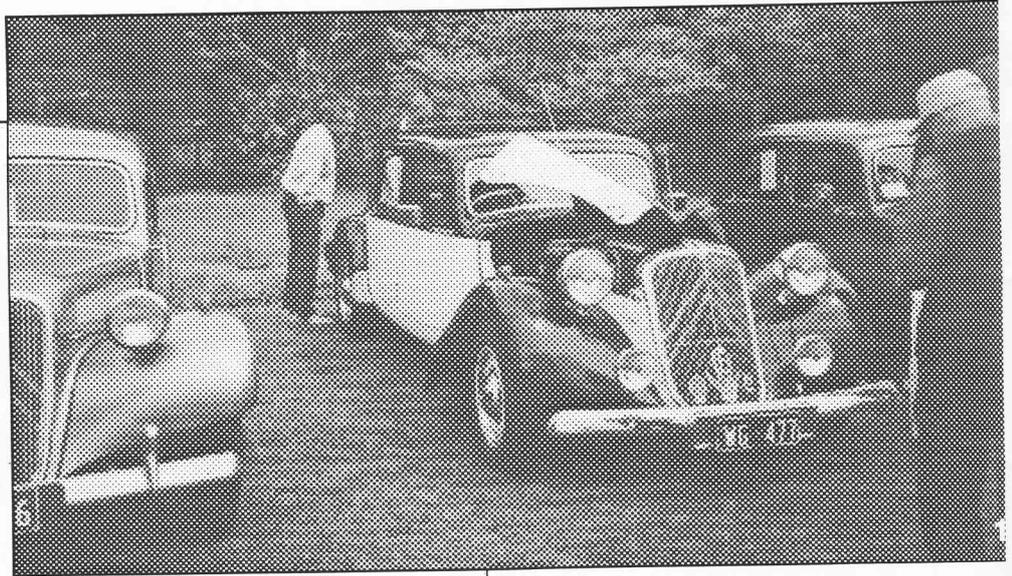
**Shannons**

**Commonwealth Bank**

**Traction Restorations  
Australasia**

**Les Halles**





1 Most Popular Car winner. The Traction Restorations Australasia Big 6.

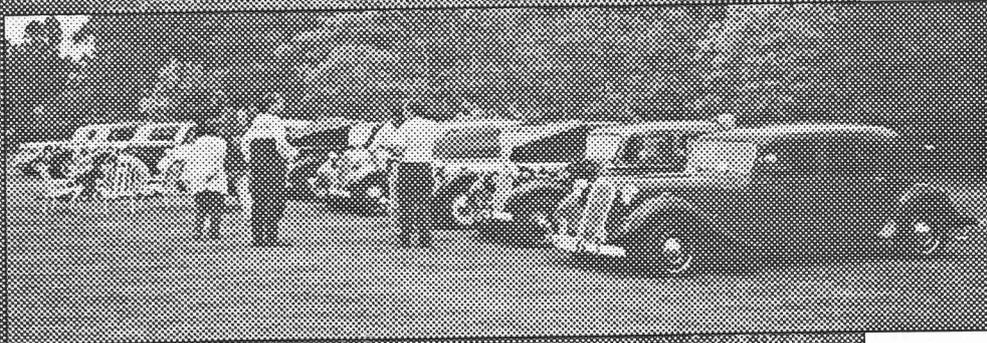
2 Almost cute enough to be a Citroën the very nice Fiat Topolino drew admiring glances

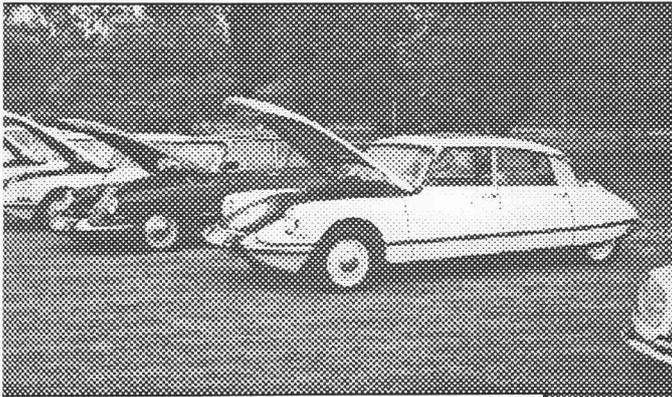
3 The beautiful Class Winning DS owned by Paul Etherington

4 Open wide and say Aaaaah!

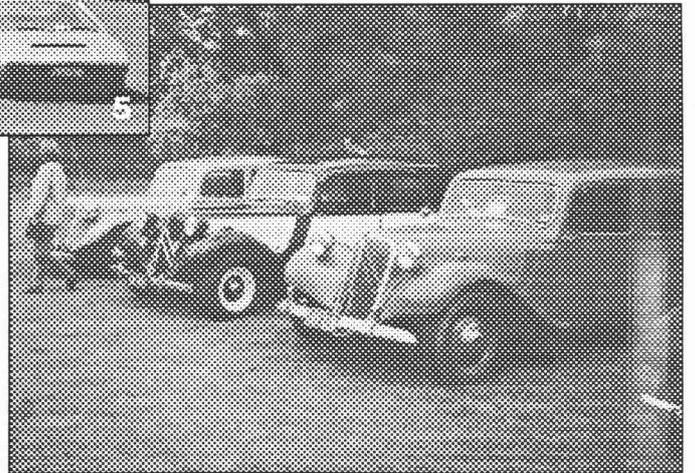
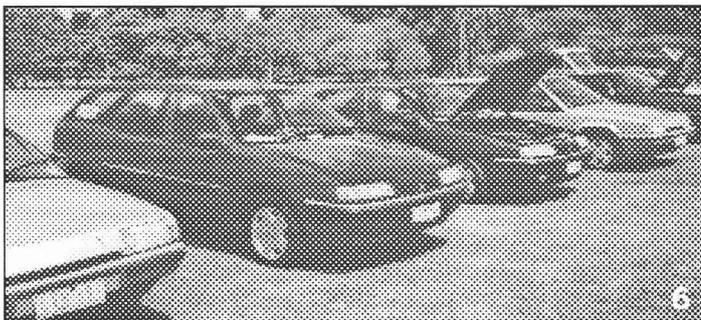
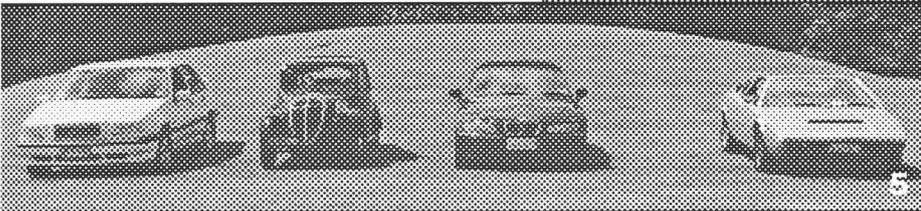
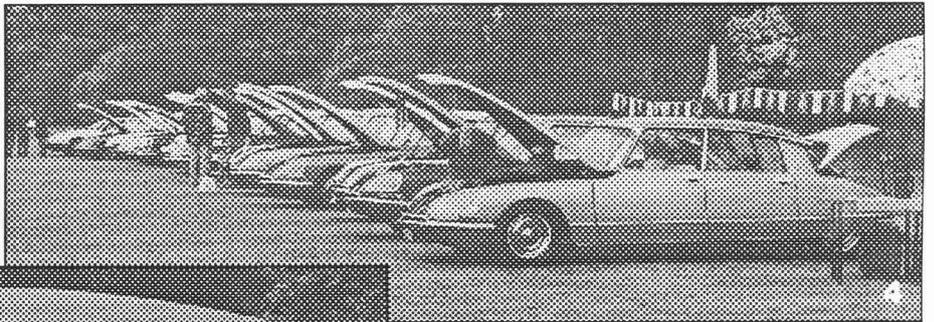
5 The owners of these cars just wish they had driven their Citroëns on the day

6 the class winning Modern Citroën was the Xantia Estate owned by Peter Fitzgerald





1997 Citroën  
Concours d'Elegance



## 1997 CITROËN CONCOURS D'ELEGANCE WINNERS

**Best Traction Avant**  
*Sponsored by Traction  
Restorations Australasia*  
Gerry Propsting - L15

**Best 2CV**  
*Sponsored by the  
Commonwealth Bank*  
Martin Holberg - 2CV Dolly

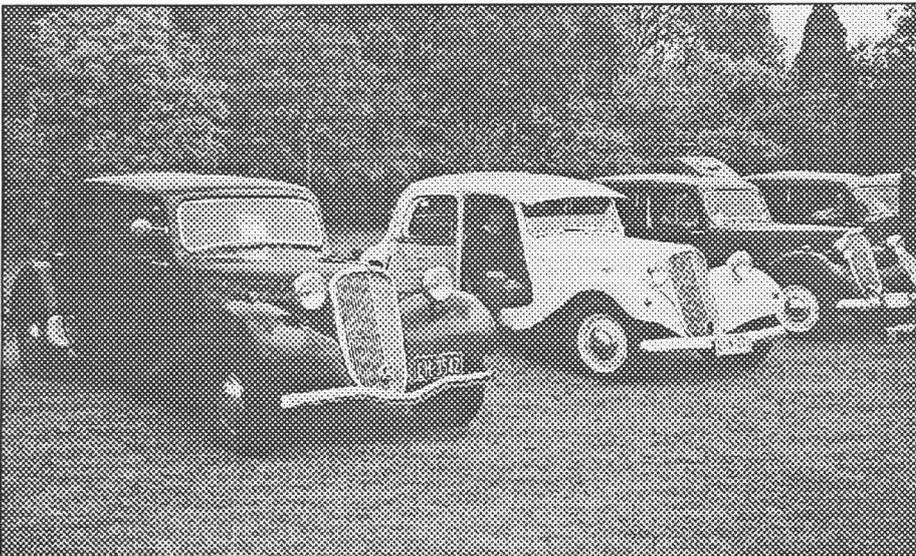
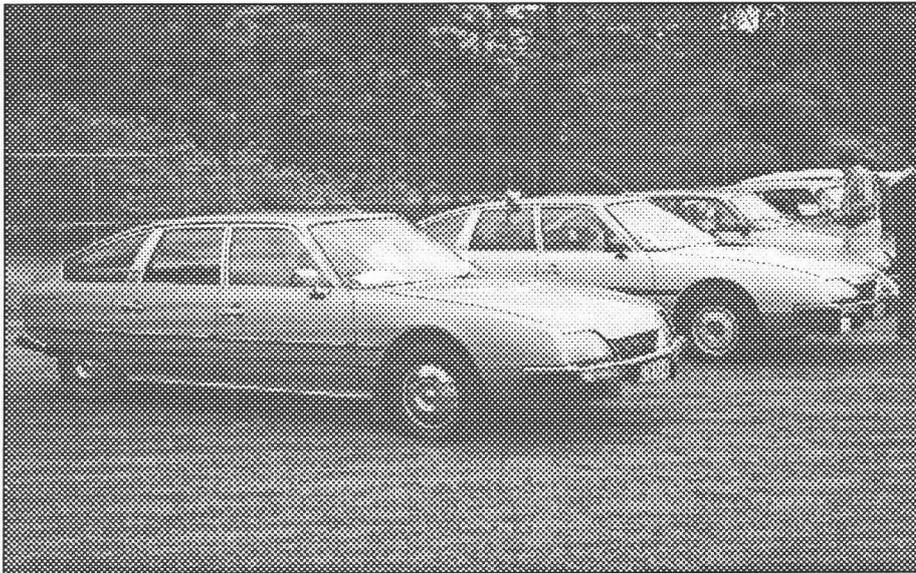
**Best ID/DS/SM**  
*Sponsored by Shannons*  
Paul Etherington - DS Pallas

**Best CX/GS**  
Karen Saliba - CX 2400 5sp

**Best BX/Modern**  
*Sponsored by  
Melbourne Citroën*  
Peter Fitzgerald  
- Xantia Estate

**Most Popular Vehicle**  
Mel Carey - Big 6

**Overall Concours Winner**  
*Sponsored by Ateco  
Citroën Australia*  
Gerry Propsting - L15



## Spray Grease PRODUCT CHECK

I was recently in the local Holden dealership, checking on some small bits [more of which later] and I noted a product that could be of interest to 2CV-owning members and likely to others as well. Holden Spray Grease [part number M39760] is a 300g spray pack of lithium-based grease which sprays as a liquid, through the thin plastic 'straw' provided, but sets semi-solid.

The blurb on the can claims that it is formulated for steel-to-steel or plastic-to-steel lubrication, will not melt or freeze, building up to form a film that defies

friction, rust and corrosion. Said to be ideal for hinges, chains, lawn mower wheels, striker plates, cables, springs, cams, linkages, etc.

It struck me as having great potential for greasing the 2CV suspension knife edges which connect the suspension arms to the spring boxes. This process, necessary at 5,000km intervals, or when squeaking/graunching from below alerts you to the need, is usually accomplished by daubing grease on an extended index finger - both messy and very inefficient.

A quick test run of the product on the four knife edges and adjacent rubbing areas on Truffle indicated behaviour just

as predicted - in its liquid form the grease flowed easily into all the right spots, then rapidly 'set' with virtually no loss due to run off or dripping. The developing squeaks seemed to be stopped there and then. All that remained to be done is to squirt 200-300ml of castor oil past the rubber boots at each end of each spring box.

Recommended retail price is a bit under \$8, but with a bit of banter I managed to get mine for six bucks. I expect the spray grease to find a range of uses around the house and workshop as well as most likely additional uses on the little Citroën.



# RAID Vendée

For members who are interested in a little more information regarding Raid Vendée, Alain Brown's French friend, Gaston Pommille-Batard has sent CCOCA a cassette with his personal views on the planned Raid. For members who were not in Melbourne for the October meeting, I have prepared this transcript of the salient features of that tape. Ed.

TRANSCRIPT - MORE OR LESS - OF AUDIOTAPE GASTON POMMILLE - BATARD TO CCOCA - SEPTEMBER, 1997.

Bonjour my little kangourou amis of ze CCOCA club. It is moi, Gaston Pommille-Batard, your mate from Ste Cecile in la belle France. You have not meet me yet, but I reckon some of you already you meet my very good friend Alain Lebrun. 'E 'ave speak to ze CCOCA club in ze Melbourne in April.

I say zat if you know my very good friend Alain, is almost like I know you a leetle bit also... Today is beautiful September day. Here we make ze sunflower 'arvest and ze vendanges. You know vendanges? Is ze picking of ze grep to make ze wine. My Australien friend Ralph Heebeule from ze Orange Grove in ze Perth, 'e member of Association of Citroen Enthusiasts in WA - zat very friendly club you know, Gaston 'e speak at a meeting wiz zem in May... Well ze Ralph, 'e know all about ze Ste Cecile wine. May be 'e tell you about it if you go to Citroen meeting in Easter in WA.

My very good friend, Alain Lebrun - I think you know him, no?, 'e say to me "Gaston, is about bleurdy time you do something usefool. You tell CCOCA members about Raid Vendée 1998. "So, I decide to send CCOCA club zis cassette so zey can lissen in meeting.OK,

## RAID VENDÉE.

If Australien friends, zey want, it 'appen in May next year. And also if zey want, it can 'appen again in August after ICCCR meeting. But only if enough Aussies zey get - 'ow you say - arse in gear.

Alain, 'e reckon plenty of Australien bastards they come to France next year. Sorry I swear, but zis is 'ow 'e say. So 'e thinks 'e 'elp zem arrange something.

If CCOCA committee zey got arse in gear, you should 'ave copy of Alain Lebrun's document, it called Press Release Raid Vendée, May 1998.

But, Gaston, 'e think this information sheet it bleurdy boring. So you look at ze sheet and you leesen to Gaston. Zis more interesting, no? Because Gaston, 'e reckon you come to car club meeting for ENJOY not get bleurdy boring, no?

Alain Lebrun, 'e reckon Australian Citroenists, if zey come to France for 50 years 2CV celebrations, zey need relax after. Maybe zey tired of drink ze cheep French stubbies and eat ze canned Luncheon meat from Holland all ze time.

And 'e think they don't want big organisation and big bush bash all ze time. 'E reckon all Aussies they like the ENJOY.

And 'e see in France is organise ze official 2CV Tour de France. 'E also see zis cost ze BIG bikkies - in France we say cost ze skin of your arse - and Alain Lebrun, 'e reckon Aussies zey already pay once ze big bikkies to bleurdy get to France in first bleurdy place. So, 'e reckon Aussies, maybe zey like to see ze authentique France in Vendee and not pay skin of your arse. I play leetle accordeon and tell you of what Alain 'e reckon is possibeule...

On first day, arrive in Ste Cecile, and go for pot d'amitie at ze Mairie. Ze Marie, 'e called Rene, 'e know Alain real well, and 'e like to meet some real Australien, because my very good friend Alain 'e just half pommy bastard and no authentique Australian.

You can stay at camping if you want. At Ste Cecile we open campsite early just for Citroenistes Australiens. Or you can stay in chambre d'hote at ze watermill Moulin du Pont Pajard...

We 'ave special meeting room to enjoy in Ste Cecile, for bbq and stuff, Alain

Lebrun 'e know Aussie zey like ze BBQ and zey also like ze stuff. And Gilbert Croue, 'e 'ave some bleurdy good steaks. Maybe 'e kill a cow or two, because Alain Lebrun, 'e tell Gilbert one Aussie 'e eat one cow in one week.

Day 2 can be if you want Marais poitevin, 'ere 'undreds of kilometre of leetle canal. We can 'ire many boat and go for piddle and pique nique. If you don't like piddle yourself, zen you can ask guide to piddle instead.

Next day Alain say maybe Noirmoutier; we drive over causeway to island at ze low tide. But we be careful - if tide she come in, your Citroen she get flooded, and I don't mean ze bleurdy carburettor... Maybe restaurant or bbq in evening.

Day 4 you can explore ze western France. Alain, 'e think per'aps ze Australians zey feel 'omesick and zey want to drive many kilometres so zey feel at 'ome. You can chose lots of places - La Rochelle, Nantes, Chateau de Loire. Maybe even get T shirt? Gaston, 'e know very well ze Aussie humour, no?

And on last day per'aps Vineyards of Vendee? And La Morliere restaurant in evening to try local fish or Jambon mojettes. This ham and beans and make much fart.

Alain, 'e tell me he thinks Raid OK with up to 30 people, and at least 10 to make it work. So, 'e say please get arse into gear and tell 'im - 'ow you say - quick bleurdy smart if you want to come.

You find information sheet, Alain 'e 'ope in club magazine. But please you not stuff around too long. You tell Alain pretty quick if you want to go, OK?

He need to know by 30 November latest. OK? I play you some accordeon, so 'ave a great CCOCA meeting.

As you say in Australia... Catch you later.

A bientot my leetle Melbournians...

Gaston. 23 September, 1997.



# RAID Vendée HOW TO GET THERE

Press Release to all Australian Citroën Clubs - 23 September, 1997.

A RELAXED 5 DAYS DISCOVERING THIS AREA OF WESTERN FRANCE FOR AUSTRALIAN CITROEN ENTHUSIASTS.

1998 - 2CV 50 Years Old...for fellow Australian Citroenists who intend joining in some of the official celebrations here in France, I propose a few days 'recovery'.

The emphasis will be on good company, gentle touring, local food and wine and palatable servings of 'kulcha'.

Dates: May, 1998. Provisionally starting two days after the end of 'official' French 2CV celebrations.

Costs: The Raid is free. Participants will be responsible for their own living expenses. For guidance, hotel \$30/person/night or camping \$12/person/night.

Provisional accommodation reservations have been made. Restaurant menu typically \$15.

Meeting Rooms in Ste Cecile at our disposal free of charge [bbq, secure storage].

Transport: BYO 2CV or other. Contact me if this is not possible.

Outline itinerary: Final version will depend on feedback from participants;

Day 1: Arrive Ste Cecile. Raise glass of friendship offered by the Mairie of Ste Cecile. Restaurant meal.

Day 2: Marais Poitevin - The 'Green Venice' canals.

Day 3: Drive over to Island of Noirmoutier at low tide via 'Le Gois' causeway.

Day 4: Free to visit further afield [La Rochelle 90kms, Nantes 60kms, Mont St

Michel 200kms, Loire Valley 100kms, Futurescope technology park at Poitiers 90kms, etc., etc.]

Day 5: Vineyards of Vendée. Evening at 'La Morliere' lakeside restaurant.

NUMBERS LIMITED TO 30 PLACES. WE NEED 10 TO MAKE RAID VIABLE. PLEASE INDICATE

YOUR INTEREST AS SOON AS POSSIBLE AND IN ANY EVENT BY 30 NOVEMBER, 1997.

Find out more about Vendée from Australian Citroenists who have already visited;

Rolf Breyer [08] 381 6266 or Ralph Hibble [08] 9459 1636.

Please use the enclosed booking form if you are interested in going on this great sounding expedition.

## DIRK DEEDS.

It was only during the 2CV Raid Oz #3 in 1996 that I had my first opportunity to become familiar with [and increasingly appreciative of] M. Boulanger's little marvel, the 'deux chevaux'.

Oh sure, I had once been driven [maybe I even took the wheel briefly] in a yellow Dyane [with significantly the plaque d'immatriculation DYANE 6], courtesy of the then President of CCOCA, to a weekend in Bendigo. I did drive a different yellow Dyane [which again sported the plates DYANE 6] courtesy of a later President of CCOCA, to an intriguing weekend in Victoria's spa country. These were placid affairs [at least in the automotive sense], and no real basis for evaluation of the 2CV idiom when compared with prolonged, rigorous and highly varied association provided by the Raid and subsequent experiences.

Thus, I had embarked on a 'steep learning curve' [as it is put currently] which continues to the present time, now that I have purchased one of the Raid cars and made it my everyday transport. [A vast improvement, Bill, on the blue and oxide

Ford Falcon. Ed.] I refer, of course, to the yellow and blue 1972 2CV [prepared and driven in the Raid by Barry Annels, for whom I acted as co-driver], now named Mathilde, but which I have given the familiar handle Truffle - a reference to the tiny pink plastic pig which I found on the grass of the Coral Bay [WA] camping ground and which now takes pride of place monitoring proceedings from a vantage point above the centre of the dashboard.

Wherever I go in Truffle, it attracts attention. Many of course are interested in it because it is unusual. For example, conversation at a service station: "First one you've seen this week, I guess?" "Hell, mate it's the first one I've seen in 45 years!" For other men it evokes memories of their youth - perhaps even in a different car completely - an MG TC or MGB for instance. For many, though it recalls personal associations - a trip to France, or even a time when they drove a 2CV, usually in Europe.

Women, even if they do not know what it is [many, and not just women, think it is



a Volkswagen and even as happened at Taree (NSW) try to convince me it a Volkswagen!] usually say positive, appreciative, complimentary things, reflecting in some instances, I am sure, maternal impulses - after all, it is or conveys the sense of being a baby-sized car. Some adults, stumblingly aware of something European about the car [certainly not English, American, Australian and especially not Japanese] plump for



French, but still get it wrong [Renault, Peugeot?] or even Italian [Fiat?].

Drive past a school [or at least a junior school] and the kids love it - maybe they mistake me for Mr Bean, or even Noddy [once not politically correct, but now I believe p.c. again, so I do not mind].

Older kids however [cretinously deluded and probably xenophobic in the broadest of senses] are likely to be derisive - one, no doubt to cover his ignorance, and thinking I was out of earshot [would he care, anyway?] told his girl friend that it a 'monkey car'. [Did he mean 'Monkee' did that musical group have distinctive cars, or did he see me as rather simian - maybe it is the way I eat bananas?]

For one trio of little bxxxxs [lost I think in that time warp of peri-puberty] it was beyond their enfeebled capacities and they lined up along the footpath as I approached with Truffle, turned their backs, bent over and pretended to 'brown-eye' us. I helped Truffle to give them a high-pitched 'toot-toot' on the air horns.

Believe it or not, I have even had a couple of motorists run into the rear of Truffle - bright yellow with blue guards! Fortunately, very little damage.

Thoughtful CCOCA types have suggested that the drivers were not drunk, asleep or whatever - just dazed perhaps!

Irrespective of the reaction to Truffle [and here, generally, I take the stance of: "There is no such things as bad publicity"], one thing of significance to CCOCA I think comes out of my experiences: there is a damned lot of interest out there in 2CVs!

Many people want to talk about the car, what it will do, how do you get on for service, are amazed by the things that this tiny car has done. Most significantly, a surprising number say they want to get one and how should they go about it.

Also surprising [for them], I am able to tell them that there are 2CVs for sale - especially after the Raid; that parts, servicing and general support are not that hard to come across; and that the best thing they can do for starters is to 'join a club' [particularly CCOCA, which clearly is one of the best]. At that point in the

conversation, I 'take down their particulars' [oops - there I go again], and pass them on to Secretary Sue so she can put them on the database as potential members and send them out Club details, examples of Front Drive and joining procedures.

Now, besides noting the significant interest in 2CVs out there [and for that matter, in here], the second point I want to make is the need to service their interest, in part, by raising the profile of 2CV matter in Front Drive. In the 'old days', we used to run such articles under the general heading of 'Twin Pot Topics'. To some extent, I am uncomfortable with that heading. Some small Citroens, notably those that owe their origins to the Peugeot 104 [following hard on the merger of Citroen into Peugeot Societe Anonymie in 1976] and in particular LN, Visa [and from Eastern Europe Axel and Olcit], while akin to the 2CV and not normally considered as part of the 2CV group.



The 2CV group [as implied for example in Brooklands Books 'Citroen 2CV' and John Reynolds recent 'Sixty Years of the Citroen 2CV'] normally involves vehicles which are perceived as 2CVs and derivatives ie 2CV, Dyane and sometimes Ami [and in turn derivatives of each of these - vans and the like].

This 2CV group of vehicles have air-cooled, flat twin engines of variously 375, 425, 435 and 602cc not withstanding that stretching engine capacity up to 602cc gave such cars a rated power [for French taxing purposes] of 3CV and that the Ami Super has the 4-cylinder GS motor of 1,015cc and a rating of 6CV.

In Australia, as far as I know there are no LNs, Axels or Olcits, only two 2-cylinder Visas, a few Amis and Ami Supers and three 4-cylinder Visas.

Hence, the 2CV group effectively gets down to 2CVs, Dyanes and derivatives

with a 'shadowy fringe' of Amis and Visas. [Personally, Bill, I object to being described as a shadowy fringe. Ed.] It is interesting to check these thoughts against the definitions used in the UK, via '2CV GB News', magazine of the Deux Chevaux Club of Great Britain [surely one of the best in both magazine and club department for 2CV enthusiasts anywhere.] 2CV GB deals with 2CV/Dyane [and derivatives and kit cars using these parts], plus Amis and, strangely [as guests] H-vans!

Again, in the past, in Front Drive, the face [or at least the voice] of this 2CV/3CV group of vehicles has from time to time been projected by a character calling himself 'Dirk Shervo'. If you are too young, in Club terms, to recognise this name, think how a French person would say 2CV [=deux chevaux vapeur - literally two steam horses]. He would drop the vapeur bit completely and say it, roughly, 'dir sh'voe' or, with bit of a glottal stop and a slur, 'dirk shervo'. Hence the nom de plume, Dirk Shervo. There used to be great rivalry between Dirk Shervo and someone called Torr Shaun Barr [torsion bar - the springing medium, and hence the voice, of the Traction Avant Citroens].

Anyway, because I like Dirk [and even tried to portray him once] I am proposing a regular column on 2CV technicalities, experiences,

etc. under the heading used in these notes - 'DIRK DEEDS'.

There is an excellent precedent in the UK where 2CV GB News presents technical contributions from time to time [I hope they will not mind us using their stuff occasionally] and they even plan to put these tips into a collected volume.

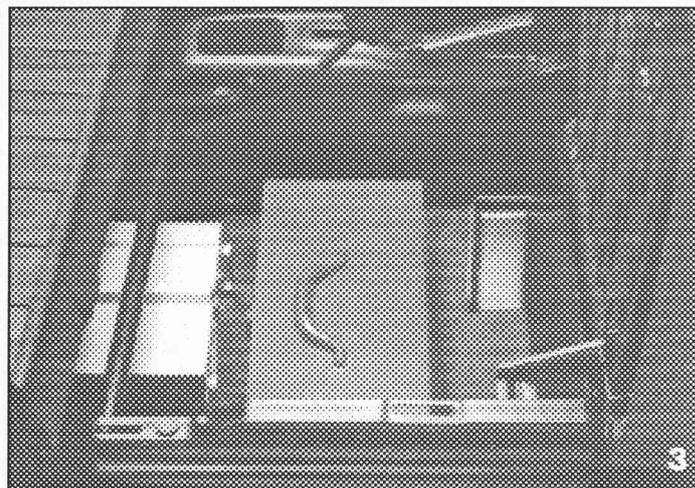
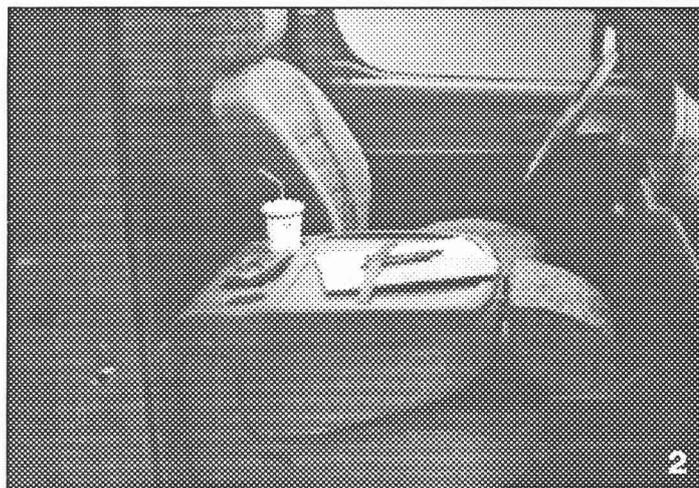
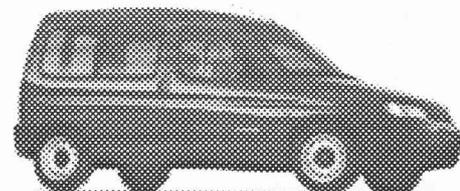
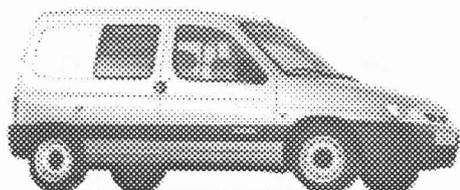
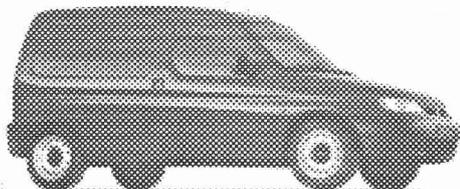
In the short time that I have had Truffle many little repairs, improvements, etc. have come up and I would like to share these with members. One such is included below. I hope others will similarly share their experiences and ideas for 2CV maintenance and improvement.

Bill Graham.



# BERLINGO

*up close and personal*



There has been some speculation that the new-ish Citroën Berlingo may be coming to Australia, although Ateco were denying this at the Sydney Motor Show. In a recent issue of 'Front Drive' we published the Press Release we received on the 'truckette' but having actually seen the vehicle and having access to the actual launch material from France and the UK that information failed to detail what I see as a number of the quite brilliant features of the vehicle. It also failed to mention any of the line extensions that are being developed by Citroën based on the Berlingo.

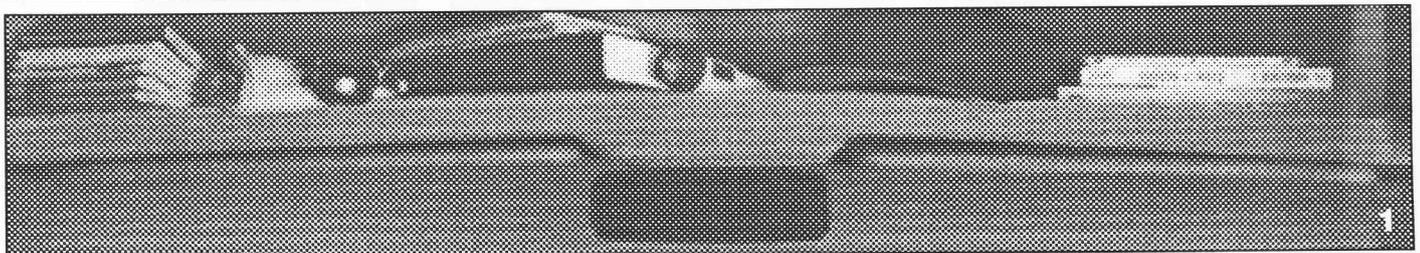
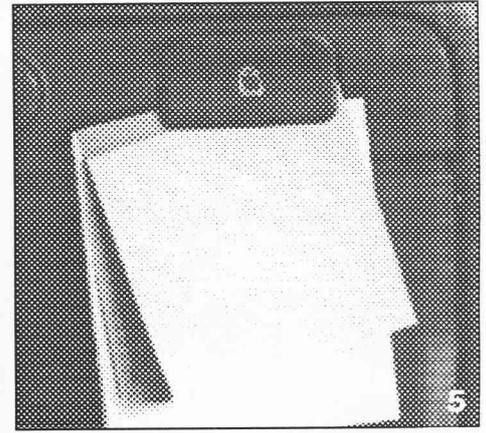
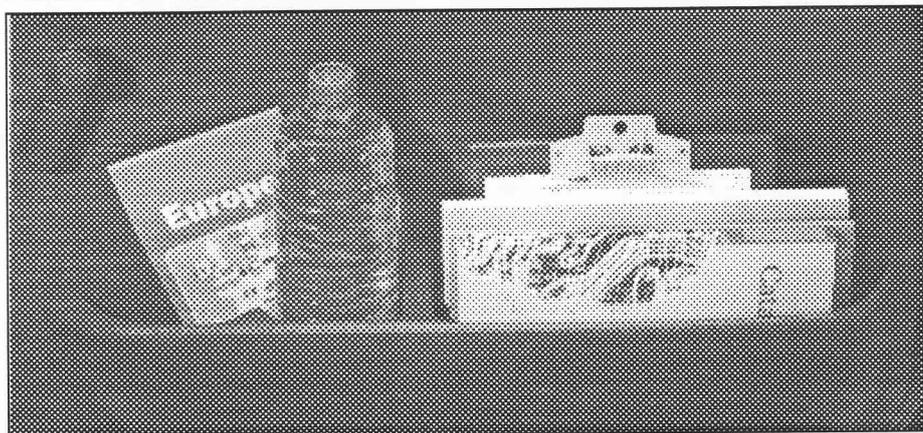
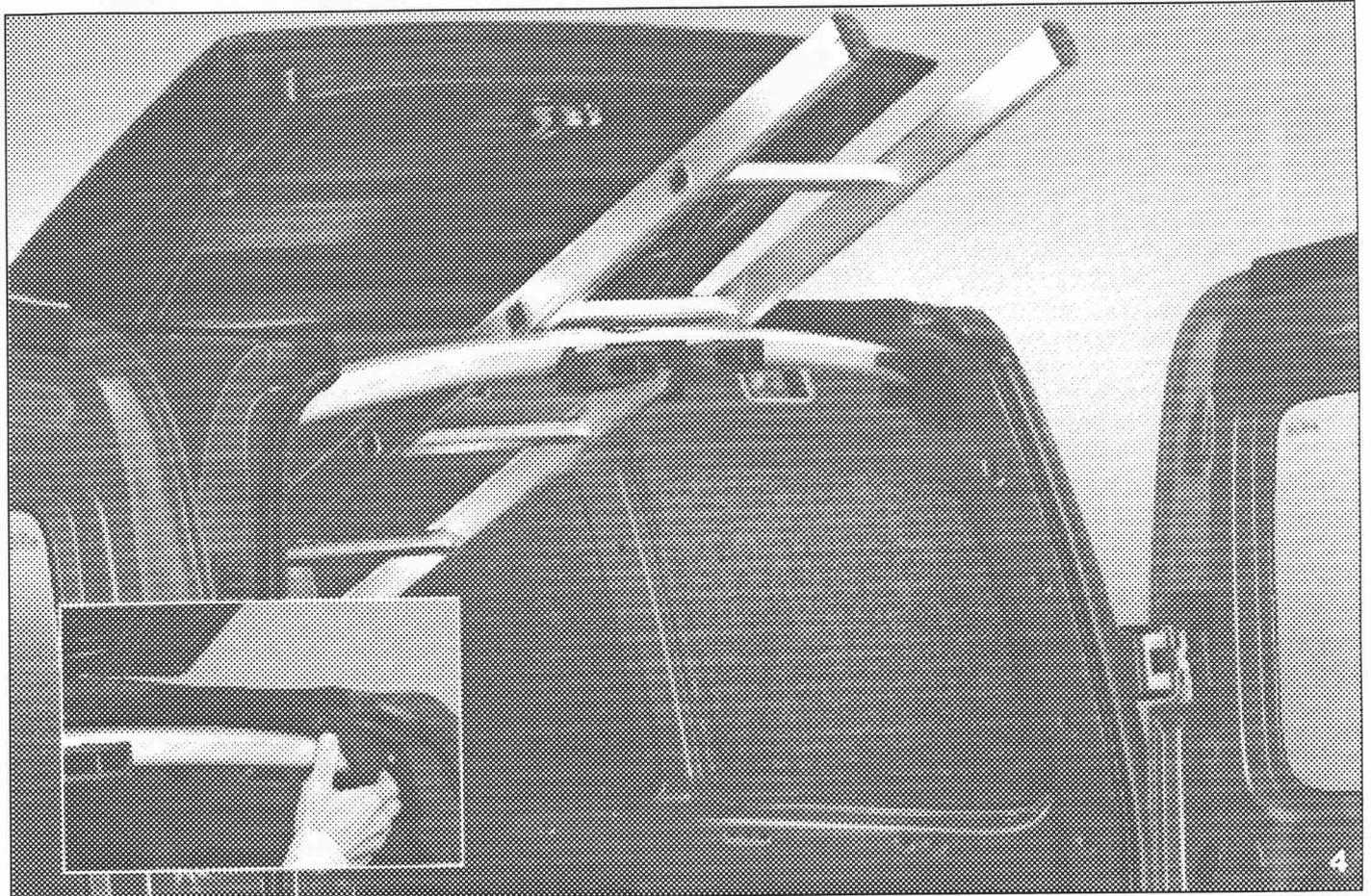
So, what are the novel things that have gone into the Berlingo? Above the windscreen, on the top of the line models is a parcel shelf. (1) Just the spot for the Guide Michelin, maps and baseball cap. [As to the safety issues inherent in this, I shall leave others to comment.] Above the rear side windows additional string-sided pockets are also available.

In the standard van versions of the Berlingo, the back rest of the passenger's seat can be folded forward to make a table. (2) Firm and supportive, for writing, and complete with cup holders and a recess for the ubiquitous mobile 'phone.

The whole seat can be tipped forward to reveal a capacious under seat storage area - large enough to hold a workman's toolbox, and more. (3) An opening flap in the roof, above the rear doors allows the safe cartage of long, bulky objects, without having to travel with them in the cabin. Perfect for ladders and the like. (4)

Let me ask a simple question, where does a workman keep the list of sites to be visited, or receipts collected? In any other van they just float around and get lost. The clever designers at Citroën have thought of that. (5) As part of the dashboard there is the equivalent of a





clipboard to hold all those loose pieces of paper we all collect.

Whilst this van was presented in Australia as an alternative to the Spanish-sourced, Vauxhaul/Opel Corsa-based, Holden Combi it is clear that the positioning for the Berlingo goes far beyond this in France. The launch material clearly positions the Berlingo as a lifestyle machine.(6)

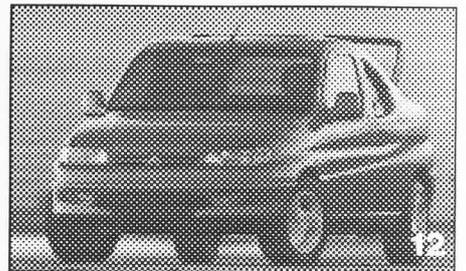
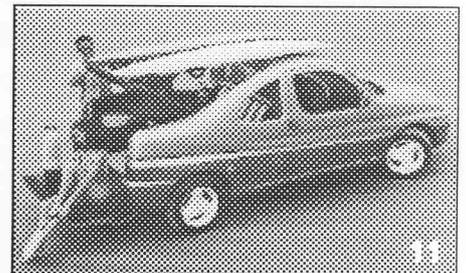
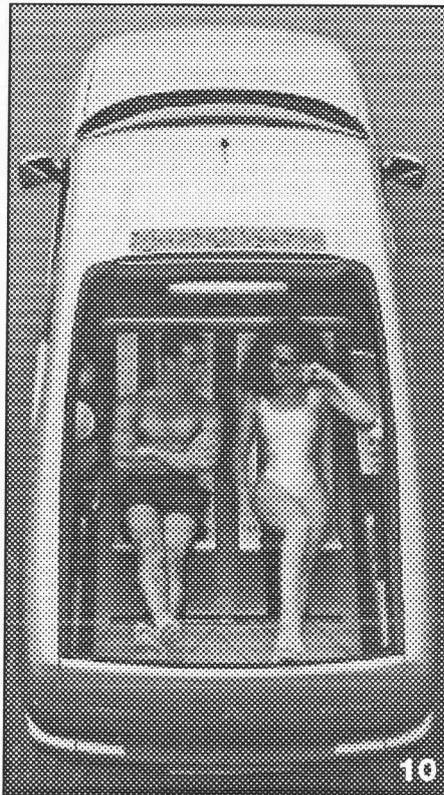
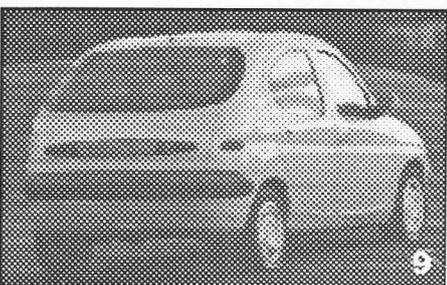
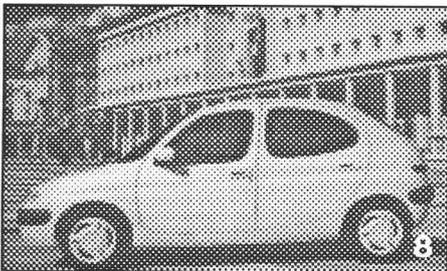
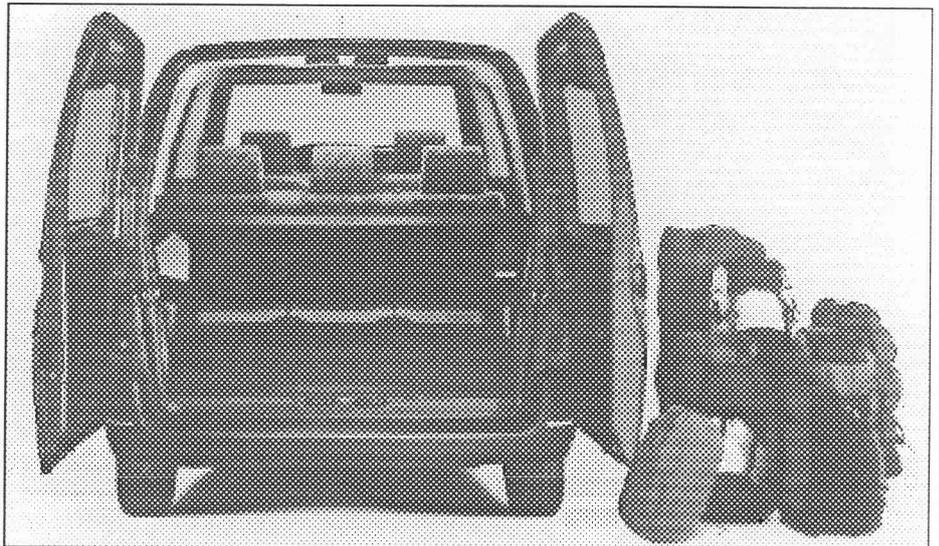
Publicity photos could easily be mistaken for those for the Holden Sandman! Although, to be fair, sailboarding and jet skis have clearly replaced surfing as the 'blade about town's' favourite [sorry, second to favourite] sport.

Citroën have, since the Visa-based C15, put a row of back seats into their small vans and the Berlingo is no exception. (7) With the extra row it is the Berlingo Multispace. Whilst it does not compare well with the novel approach adopted by Renault with the Megane Scenic, it certainly seems to work.

Citroën have taken this idea further in a range of concept vehicles prepared for the Paris Show. These include the Berlingo Grand Large (8, 9) and the Coupe de Plage. (10, 11, 12)

One can only hope that Citroën France realises that there is golden opportunity here for vehicles such as these, with little in way of competition, and that importation can start sooner, rather than later!

Leigh Miles



# CITROËN CLUBS IN AUSTRALIA

In addition to an afternoon and evening at a Motor Race meeting and my first introduction to Kart Racing, I was able during a holiday in Australia to fit in some Citroen Club visits.

The day after we arrived in Melbourne I was invited by Ian McArthur for a return visit to the Citroen Car Club of Victoria. I was collected in a 2CV by Crawford Wintersgill who was still celebrating the arrival of the latest addition to the family. I wonder what type of Citroen Robyn will be driving in 17 or 18 years time - maybe the same 2CV. On the subject of 2CVs, I was pleased to see David Gries again and was able to make some useful additions to my register of Slough-built 2CVs. David asked that I pass on his best wishes to CCC members that he has met over the years and is hoping to visit us here in 18 months, or so.

In Tasmania, the Citroen score was above average. In Hobart we spotted a 2CV and a GS in convoy and in the north of the island I had a long talk with a BX owner who happened to be stopped at a garage when we were filling up our rented car. He is a long-time Citroen enthusiast going back to pre-Traction Avant and I hope to hear from the Tasmanian Club soon as they are in contact with an Internet surfer, Julian Marsh.

We were lucky enough that the 3rd Annual National Concours d'Elegance was being held at the Domain Chandon Winery two weeks later and the Citroen Classic Owners Club of Australia had a stand there as did Citroen Australia.

This was one event in Australia where there were no 'Stubbys' or 'Tinnies'. All drink had to be bought on site; but with champagne [sic] at £12.50 a bottle it was no great hardship. The first car that I spotted was the yellow and blue 2CV that I had last seen at the AMI/GS Rally last year at Reading.

Following the successful Raid Australia, Barry left the car with Bill Graham who had evidently travelled many miles with it since the Raid. Bill also sent his regards to Fred Annels and family and all other CCC members that he has met over the years. In conversation with Club President, Leigh Miles, who had just returned from Europe with his latest addition - a Visa convertible - the subject of hard-tops for 2CVs came up. 'I have one of those', he said, 'I came to your house to buy it about 15 years ago.' Oops! In addition to the 2CV the Club

display featured various Tractions, DS Saloon, Break and Decap, a Visa, a GSA and a BX

At the monthly meeting of CCOCA the following week I met expatriate English/Australian Francophile, Alan Brown, who had been invited to talk to the Club on the classic car scene in France and how the government's financial incentives to scrap old cars had changed it.

Unfortunately, I was not able to visit the National Citroen Rally in South Australia the following weekend - 1,600 miles was too far for a round trip in the day and the family were not to be persuaded to make a weekend of it.

Originally published in 'The Citroenian', the magazine of The Citroen Car Club of Great Britain.

C. David Conway.



## READERS RIGHT

Dear Leigh,

RE: CLUB STICKERS.

Every so often I realise my Citroen is not promoting my Club membership. Years ago, we used to have CCOCA stickers to put on our car windows, etc., but we seem to have run out.

I am particularly frustrated when I see cars promoting other clubs, in the streets, at meetings, etc., but not CCOCA. My car promotes Broome, Marble Bar and the Gibb River Road. CCOCA? No!

What are the chances of getting stickers through CCOCA SHOP and perhaps with our membership renewal/joining papers?

Bill Graham.

*Bill, the timing of your letter will appear to members as a 'Dorothy Dixer', as Club Membership stickers are available again. Club members will have received one with this edition of 'Front Drive'. Additional stickers are available through CCO-CASHOP for \$1 each. Ed.*

### NETWATCH

What's new and whats hot in Citroën related sites on the internet

<http://www.users.wineasy.se/cta/VietCab.htm>

An interesting and most enlightening site about Vietnamese built Traction cabriolets and coupes. Site by Peter Larson.



# classifieds

## CARS FOR SALE

**1974 D SPECIAL** This superb 1974 D Special has an excellent interior, is registered on original B&W plates, has no rust but has the patina of the original paint and has covered a genuine 84,200 miles, also the hydraulics have recently been overhauled. The car will also come with a roadworthy. If you are interested in giving this baby a good loving home contact Graham Barton on [03] 5989 6027

**VISA CLUB MK 1** Unique in Australia? No, there are two of them, but this is the only one on the road. Visa Club, Mark 1 [Wombat nose, the original and the best], geranium red with brown interior. In superb condition. Powerful 652cc motor gives meaning to 2-cylinder performance, with all the body-roll you have come to expect. Sun roof, alloy wheels, electronic ignition, jersey cloth upholstery in excellent condition, four-on-the-floor manual transmission This excellent, rust-free, two owner car is reluctantly for sale - the sale will put a Light 15 back on the road, so take pity! \$10,000. Contact Leigh Miles, [03] 9888 7506 (AH).



### 1951 LIGHT 15

Maroon, Good Club Car, Full Reg. Pilote Wheels and spares \$8,000 Contact John Coleman Ph (03) 598 8077

### D-SERIES FOR SALE.

The cars in the following list are for sale. Chassis numbers are included to give interest to those owning the book 'The Original DS' or having other records. Some of these cars were saved from being wrecked and then painstakingly resurrected to having original type parts. I do not expect to sell more than one or two, so I will never be without a DS. Phone John Paas [07] 3368 3220 or [07]

3366 5458 or fax [07] 3366 3384. 63 Windsor Rd, Red Hill, Brisbane, Qld. 4059.

**1956 DS19.** Slough-built, no. 9-560148, approx. June 1956. This car is very early but is a 'rust bucket'.

**1957 DS19.** Slough-built, no. 9-570275, approx. Dec. 1956. This car drives and could be 'done up' to be a good car.

**1957 DS19.** Slough-built, no. 9-570528. Original condition, little rust, not driven for 20 years. Grey blue with original blue and grey door trims. Newly upholstered seats in blue and grey Connolly leather, as original. \$8,500.

**1957 DS19.** Belgian-built, no. 7705341. Sold new in Heelen, Netherlands. Imported and eventually converted to right hand drive on ID shell. Thankfully most DS trim, etc. was kept, including original engine and gearbox. Overhauled, but not yet used. Purple velour seats, ID dash. Includes one original Dutch number plate.

**1959 DS19.** No. 9-591408. Sold though South Africa, having Slough and South African identity plates. Very original car. Original blue and grey door trims. Newly upholstered seats in blue and grey Connolly leather as original. Currently registered and periodically run as everyday transport. New stainless exhaust system. \$10,500.

**1961 ID19.** Australian-built, no 207-698. Was used as everyday car three years ago. Needs work on brakes and radiator to pass roadworthy. Very original. \$3,000.

**1964 DS19.** Belgian-built, right hand drive. Hydraulique. No. 4287442. Not going but original. No rust. \$4,500.

**1966 ID19 CONFORT.** Imported to New Zealand for French Embassy. Was black with flag on mudguard, now metallic gold with original red and white upholstery. Came standard with DS mechanicals, but is 4-speed manual. A very good car. \$6,500.

**1967 DS21 PALLAS.** 4-speed manual, a rare and collectable car, last of the single headlight models. Pewter metallic, brown leather interior. Very good car. \$15,000.

**1967 DS PALLAS.** 4-speed manual. This is similar to the previous car but built up

from ID19B shell to become Pallas using slopy dash and Pallas trim, as original. Little work to finish. \$4,500.

**1968 DS21 PALLAS.** 4-speed manual. First of the double headlight cars, very original car, in running condition. Black leather interior, no rust. \$8,500.

**1968 DS21 PALLAS HYDRAULIQUE.** Running as everyday transport, similar to above. New black leather interior. Not as tight and original as above, could be more collectable being Hydraulique. \$8,500.

**1972 DS21 PALLAS HYDRAULIQUE** Injection Electronique. Second, third and fourth gear higher, so fourth is like driving in 5-speed manual. Newly upholstered. Used as everyday transport. Good condition. \$10,500.

Phone John Paas [07] 3368 3220 or [07] 3366 5458 or fax [07] 3366 3384. 63 Windsor Rd, Red Hill, Brisbane, Qld. 4059.

**CITROEN D SPECIAL.** 1974, Good condition, blue vynal interior, ivy green exterior. Recent head overhaul. With workshop manual, \$4,750, ONO. Diana, [02] 6494 9173

**ASSORTED PARTS** The following 2CV/Dyane, [along with a few D-series and G-series] parts were shipped from France in late September and all are for sale. Contact Alan Brown [0011 33] 251 40 26 74 or fax [0011 33] 251 40 26 36.

Item No	Part
1	LH mirror
3	6 x shock absorber mounts
4	Fuel gauge sender
5	2 x front shock suspension arm plates
6	2 x suspension arm bearings
7	LHM master cylinder
8	As 6
9	Pack chassis fixings
10	LH mirror
11	Iskra starter motor
12	Alternator
13	Drum master cylinder
14	2 x Dyane headlamp bezels
15	Dyane speedo
16	Headlamp glass
17	Pkt seat rubbers
18	Oblong headlamps
19	Club speedo
20	2 coils/2 HT leads
21	Clamp - steering rack/column
22	8 x axle bolts
23	Rear hub nut - 44mm



- 24 Pack brake [sic]/fuel line to chassis clips
- 26 Fuel neck seal
- 27 2 x Club parcel shelf ends
- 28 Front to rear brake pipe
- 29 Pr track rod ends
- 30 Pr front shocks
- 31 9 x Citroen badges
- 32 6 x GS alloy wheels nuts
- 33 As 30
- 34 LH Dyane headlamp, inc. bowl
- 35 2 x suspension arm bearings
- 36 RH as 30
- 37 As 9
- 38 Pack asst Dyane small parts
- 39 Pr rear shocks
- 40 Pr Dyane wipers & arms
- 41 2CV window latch & stay
- 42 2 x Dolly rear door pulls
- 43 3 x warning lamps
- 44 3 x dash switches
- 45 Grille & fan
- 46 2 x footwell side trims
- 47 Pr track rod ends
- 48 1 x front bumper over-rider & 2 x trims
- 50 Pr R arm caps & ligarex
- 52 LN headlamp [can be modified to 2CV]
- 53 As 52
- 54 Dyane rear lamp
- 55 As 54
- 56 Alternator
- 57 Dyane instrument panel
- 58 Dyane coil & correct leads
- 59 As 54
- 60 Pr rear brake pipes
- 61 Pr inner front seatbelts
- 62 2CV headlamp glass
- 63 12 x long wheel nuts
- 64 4 x knife edges
- 65 Pr brake callipers. Perfect v low kms
- 67 Pr discs as above
- 68 Motor - 1978 2CV inc. carby
- 69 Steering column U bolt
- 70 Disc gearbox ex 1980 Dyane. V low kms
- 72 Alternator
- 74 F/R brake pipe
- 76 Optalix 1960s 12v radio/speaker. Fits dash DS or as fitted 60s/70s 2CV & derivatives
- 77 Acadiane wiper motor
- 80 LH mirror
- 81 F mudflap
- 82 RHF indicator comp black
- 83 LHR lens
- 84 7 x Citroen badges
- 85 Pr hood straps
- 86 Plastic Dyane headlamp bezel
- 87 2CV wiper motor. VGC

- 88 Set D shaft nuts
- 89 Pr round headlamps - Agostino
- 90 Coil
- 91 Roof for repair
- 92 RH 2CV tail light. Black plastic backing plate
- 93 As 92 LH
- 95 2CV bonnet
- 103 LHF suspension arm
- 104 RHF suspension arm
- 106 Chassis - 2CV, disc or drum
- 107 Chassis ex-Ami 8 - heavy duty, suit 2CV/Dyane
- 108 Chassis 2CV disc or drum

## CARS WANTED

**CITROËN DS 21** or similar in good condition Call John Hamilton [0362] 503 230 (Tasmania).

**CITROËN ID/DS19** Green fluid Must be good clean reliable car as no garage space for total restoration. Registered preferred. Up to \$3,000 for the right car. Contact Dean Hobson, 54 Ballarat Street, Yarraville, Victoria. Ph.[03] 9689 4173

**LIGHT 15/ BIG 15/ BIG6** Must be complete, body in good condition, prefer Running/reg. Phone Steve Muir [08] 9450 2874 or post details/photos to 4/22 Axford Street, Como 6152

**LIGHT 15** - fully restored sought by new member. Contact Mark Aptman Ph. 03-9782 6846 (AH) 03-9586 1250 (BH)

## PARTS FOR SALE

**LIGHT 15** Grille in very good condition - ready to bolt on the car \$1,000. Initial contact is through Mel Carey, but they are not Mel's parts. [03] 5152 1040.

### REAR VENETIAN BLINDS - UK

Classic rear venetian blinds made by Gradulux-France for most types of Citroen, from Traction to CX, saloon or estate, brand new in box, classic accessory. Indicative price: DS saloon £55+p&p For details: Oliver, [0011 44 1474] 832 239.

### GS/GSA BRAKE PADS FOR SALE - UK

GS and GSA [to 6/81] rear pads £5. [Citroen price £20.] Jonathan Makepeace, [0011 44 181] 399 6582.

## PARTS WANTED

**VINTAGE CITROËN** parts and literature. Also headlight for 11BL [French Light 15]. Will swap Light 15 bits or buy. Neil Rankine [056] 721185.

**ID CON RODS** to suit late-model ID. Ring John Grieve on [03] 5823 1273 or Fax [03] 5823 2310.

**TO COMPLETE** my Slough-built Light 15 I need a bakelite rear-door ashtray. If you can help, contact Les Farrar. [08] 9319 1617 (B/h), [08] 9430 5274 (A/h) or Fax [08] 9319 1140.

## BROCHURES FOR SALES

### USA

Original Citroen brochures showing all Citroen models, interiors and features for the year. Great for restorations and gifts! 1949-54: US\$35 each year.

1955-59: US\$20 per year.

1960-69: US\$18 per year.

1970-present: US\$15 per year.

Shipping is extra, quoted as US\$3.50 within Continental USA. Specify model and year. Walter Miller, 6170 Brooklawn, Syracuse, NY, USA. 13211. [0011 1 315] 432 8282, fax [0011 1 315] 432 8256.

This advertisement recently appeared in the publication of the Citroen Car Club Inc., of Hollywood, USA.

# talking technical

SPARE PARTS OFFICER - MEL CAREY

## NEW ITEMS IN STOCK

Sump gasket sets  
 Engine gasket sets  
 Big end bearings (Slipper Type) STD,  
 0.50, 0.25  
 Door window bottom channel  
 Window glass channel  
 Piston and liner sets  
 Radiator caps  
 Inlet and exhaust valves  
 Valve guides  
 Cradle plugs  
 Rear valance pannels for big boot  
 Outer tie rod ends  
 System VS, lower ball joint adjusters

These ball joint adjusters are a must for the busy Tractionist, they make a ball joint adjustment a breeze!

No more standing on your head fiddling with half a dozen shims which really don't want to go where should and trying to refit the cap at the same time, then doing it all again to get it right. With these adjusters, time taken to re-adjust your balljoints would be quicker than greasing the car. They are highly recommended.

Please 'phone anytime on either the mobile number during working hours or the after hours number. If you get the recorded message on the after hours number, please leave clear instructions or 'phone me back.

Most of our out-going calls for the Club are STD. If you have not left a full and complete message these calls can be both long and expensive. If you have left a complete message I can collate the information you need before I ring you back, otherwise we simply waste time and money.

To put it bluntly, if you do not leave a more complete message than 'Please ring me back', I may well not do so. If you are placing an order and have access to a fax, it is easier and cheaper to fax you with parts availability rather than ring.

So, in the words of Mitsubishi, 'Please consider'.



**PLEASE NOTE NEW  
 POSTAL ADDRESS FOR  
 CCOCA SPARE PARTS**  
 P.O. Box 469  
 Bairnsdale  
 Victoria 3875  
 Australia

**You can now  
 use your  
 credit card  
 to purchase  
 your parts**



And that means you can now pay for your subscriptions, rally fees, and not to mention the all important spare parts in a more convenient way

## SPARE PARTS FUND

The spare parts fund members receive a 10% discount on parts purchased through CCOCA spare parts with a new member fee of \$100.

This has been established to provide a short term cash injection that will give this Club the ability to purchase larger quantities of parts and therefore reducing the overall cost. This benefits all members plus is an additional bonus for Parts Fund members.

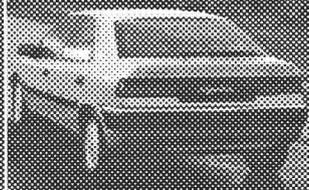
Calculate how much you spend on parts for your Citroëns per year, subtract 10% and see the savings. Remember, this membership is a one off fee...you are a member for the life of your membership.

Current members are:

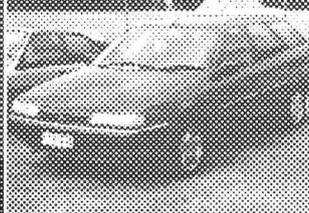
J. Couche	R. Little	P Boyle
M. Neil	A. Begelhole	M. Douglas
R. Brundle	D. Moore	R. Barton
B. Grant	L. Miles	G. Hooler
G. Propsting	B Rogers	J. Faine
A. Protos	A Scales	J.Hawke
W. Burkhardt	J. Grieve	B. Wade
F. Kidd	J. Smart	P. Bishop
D. Crossman	D. Hayward	R.Brooks
C. Bennet	W. Seidel	R. Koffijberg
P. Simmenauer	J. Cox	H Wilson
G. Carson	J.P Jardel	
M. Carey	P. Rogers	

# 1998 AUSTRALIAN CITROËN COLLECTION

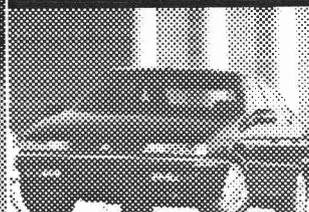
XANTIA



XANTIA ESTATE



NEW V6 XM



NEW XSARA

