



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

# FRONT DRIVE



*Australia's National Magazine  
for Citroën Owners and Enthusiasts*



*December 2020/January 2021 Vol 44 No 4*



**Postal Address**

CITROËN CLASSIC OWNERS'  
CLUB of AUSTRALIA Inc.

The address of the Club and this  
magazine is:

PO Box 52, Balwyn, Victoria, 3103.

The Club's website is:

[www.citroenclassic.org.au](http://www.citroenclassic.org.au)

Citroën Classic Owners' Club of  
Australia Inc. is a member of the  
Association of Motoring Clubs.

The views expressed in this publication  
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The Club cannot accept any  
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any business relationship that may  
occur between an advertiser and a  
member of the Club.

**Life Members**

The committee awards life  
membership to Club members in  
recognition of their contribution  
to, and support of, the Club. Life  
memberships have been awarded to:

Sue Bryant	2017
Brian Wade	2017
Rob Little	2012
Ted Cross	2012
Peter Boyle	2003
Jack Weaver	1991
Nance Clark	1984

**Citroëning**

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

New Permit holders must  
supply the Club with  
approved photos, club permit  
number and expiry date.

Club permit renewals can be  
sent to PO Box 52 Balwyn,  
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return envelope or signed  
at club meetings/events if  
the appropriate officers are  
present.

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**Membership**

Annual Membership is \$35 and  
printed editions of 'Front Drive' are  
posted to Australian addresses for an  
additional \$45 per year.

**Meetings**

Club meetings are held on the fourth  
Wednesday of every month [except  
December] at 7:30pm. The venue  
is the Frog Hollow Reserve Rooms,  
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**Cover Image**

The cover image is taken from the  
website [www.schlegelmilch.com](http://www.schlegelmilch.com)  
Rainer W Schlegelmilch is a German  
photographer who specialises in  
motoracing photography. He also has  
a reputation photographing cars, but  
not just cars: concept cars are a special  
interest.

**Deadline**

The deadline for the next edition of  
'Front Drive' is Wednesday, 13 January  
2021.

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**Contributors**

Contributors to this edition of 'Front  
Drive' include Tony Baker, Andrew  
Cunningham, Mark Ebery, Mark  
Provera, Andrew Roberts, LJK Setright  
and Geoffrey Webber

**FOR SPARE PARTS & TOOLS**

Contact Lance Wearne.  
Phone: 0424 054 724 [if  
your do phone, please do  
so at a reasonable hour] or  
spareparts@citroenclassic.  
org.au

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For Citroën models,  
memorabilia and other items  
contact Kay Belcourt at  
clubshop@citroenclassic.org.au

**OTHER CLUBS**

VIC [www.citcarclubvic.org.au](http://www.citcarclubvic.org.au)  
NSW [www.citroencarclub.org.au](http://www.citroencarclub.org.au)  
QLD [www.citroenclubqld.org](http://www.citroenclubqld.org)  
SA [www.clubcitroensa.com](http://www.clubcitroensa.com)  
WA [www.citroenwa.org.au](http://www.citroenwa.org.au)  
TAS [www.citroentas.org](http://www.citroentas.org)

## Ed Sed

Finally, the long-promised GS-focussed edition of 'Front Drive'.

Unlike the SM which was killed-off well before its time by a combination of the oil crisis and the sharp knives of the bean-counters [apologies to any accountants reading this] at Peugeot who never understood the brand's DNA, the GS/A lasted right through to 1986. It overlapped with the BX for about four years.

But a life of 16 years, during which the competitive set changed and advanced [well, perhaps there was less advance than we like to think] meant that the GS faced very different landscape when it was launched, and won the European Car of the Year; to that when the last GSA, apparently an Estate, rolled off the line at Vigo in Spain.

In this edition we have three views from three phases of the GS/A's life. A French revue from 1970, a comparison test from the UK in 1975 and another individu-

al assessment at the time of the launch of the GSA. What is interesting are the comments, both positive and negative, that last the life of the car and areas where improvements were wrought.

After announcing in our SM edition that the GS was to be our centre of attention I was contacted by club members Andrew and Sue Cunningham from Stawell [Vic]. They were very keen to share their Citroën experiences with the Club. Check out Member's Model on page 30.

Last year 'Classic and Sports Car' pitched a GS Pallas against one of its contemporaries ~ the Allegro van den Plas. 'Avant Garde for the Masses' makes interesting reading. We have been granted permission to re-print this article with the proviso that we not put into the web. So, this article will not be included in the version of 'Front Drive' loaded onto our site. I thank C&SC for their permission to reprint.

Many of you will be aware of the GS Camargue coupe, but there was also development of other coupe ideas both inside and outside Citroën's Bureau d'Études.

And there is more... the great LJK Setright wrote a lengthy feature in praise of the GS back 50 years ago. Filled with proof of his engineering expertise his very long read is worthy of in depth reading.

Continued on page 6



## Prez Sez

Well I'm excited again.

Another magazine from Leigh, and this time he has fulfilled his promise and given us our planned GS/A 50 years edition.

Having joined CCOCA in the early eighties to learn about and restore my Traction Big 6, I did not originally favour the more modern Citroëns. However, I quickly realised that the friendships within CCOCA were the most enjoyable part of our club, and I became interested in all the Citroën models. When Tim, our younger son turned 18, I purchased his first car; and yes, it was a GS. He had this for a short time before updating to a highly modified Datsun 1600 and the GS needed a new owner. It was sold to a friend in the country, and it became a garage queen and never returned to the road.

Much to my surprise, earlier this year it returned to the Crosses ~ just before our first lockdown, and I have been slowly bringing it back to life. And it is looking pretty good. It has low mileage after 20 years at rest, and a bit rough around the edges. You may that the GS became the Car of the Year in Europe. And all these years later I can see why. GS/As are finally being appreciated, and there is a growing group of interested owners in Europe and in Australia. Some members ~ your Editor in particular ~ has multiple GS choices in his own garage.

So why not start looking for your little bit of history and you will be rewarded with a quirky and comfortable little touring gem. Not very economical, but if you close your eyes when you are on the highway at high speed [just joking of course] your GS will feel like a DS or CX ~ a lovely floating, highway-hugging bundle of fun for not too much money.

Now to events. We are gradually re-starting events under strict safety guidelines. Generally, the events will be limited in number and need to be accepted in advance. Most likely you will need to give us a contact phone number and maybe wear a mask and practice social distancing. Nothing really that can't be accommodated and planned for in advance.

Also please consider the 2021 CIT-IN in Bendigo whilst there are still some places left. We are very confident that it will run as planned, and we already have 100 registrations. This meets the cur-

Continued on page 6



## Ed Sed

Continued from page 4

In a lighter vein there is the final part of Geoffrey Webber's '6 Cars in 6 Days' feature. With the end of national lockdown in sight and the joys of border opening looming I am hoping that Geoffrey will be on the road again soon. Driving more Citroëns from across the country.

Geoffrey and his co-writer, Mark Provera, are also featured with their investigative piece proving that Citroën's Australian centenary is THIS YEAR, not 2023 as the importers would have us believe.

Enjoy  
Leigh F Miles ~ Editor

## A-Tractions

*Please note: As a result of the uncertainty surrounding future restrictions due to Covid-19 please check the Club's website for the latest information or contact the organiser prior to travelling to any event that may be listed.*

### • DECEMBER

#### A Very CCOCA Christmas BBQ/Picnic

WHEN Sunday, 13 December  
TIME: 12:00pm  
WHERE: Frog Hollow Reserve, Fordham Ave., Camberwell.  
COST: Free  
BOOKINGS: Essential by Monday, 7 December [see notes below]  
BRING: Everything for a picnic/BBQ  
CONTACT: Lee Dennes, 04 3828 6181

## Prez Sez

Continued from page 5

rent COVID-19 numbers allowed to meet together, but secretly we are anticipating up to 150 people will be possible by next Easter. Time will tell, and we will keep you informed.

Welcome to the new members since our last magazine. By now I will have spoken to you and welcomed you [and your partner if there is one] to the big CCOCA family. Every model Citroën is accepted in CCOCA and we continue our national focus on all things Citroën.

I hope to see you at a future event, or, talk to you soon.  
Ted Cross ~ President



[l.dennes@bigpond.net.au](mailto:l.dennes@bigpond.net.au)

All information below is based on current COVID-19 restrictions. You will be notified of any updates accordingly.

The Club rooms will not be accessible due to restrictions on social distancing. However, when we checked the toilets were available for use.

- Bookings for this event are essential, due to attendance numbers being limited by the COVID restrictions.
- You will be required to provide a phone number, and email address for each participant when making a booking.
- You can register by email to [l.dennes@bigpond.net.au](mailto:l.dennes@bigpond.net.au) with the subject: CCOCA BBQ.

#### GS/A 50th Anniversary Gathering

WHEN: Sunday, 27 December  
TIME: 11:00am  
WHERE: Coronation Park, Healesville  
COST: Pub grub  
BOOKINGS: Essential, by Sunday, 20 December  
CONTACT: Michael Sparke, 0432 685 704

Attention all Citroën GS/A/Birotor enthusiasts. Due to the postponement of CCOCA's



#### Chit Chat Tuesday

WHEN: 1st Tuesday  
1 December  
5 January  
2 February  
TIME: 10:30am  
WHERE: Provedore Café, McCrae  
COST: Cheap Eats  
BOOKING: Not required  
CONTACT: Warwick Spinaze  
04 0701 6719.

Provedore Café, McCrae Plaza, cnr Lonsdale St & Pt Nepean Rd, McCrae Easy to find, plenty of parking, under-cover seating if weather wet. This is a low key 'DIY' event for like minded Citroën owners to meet and chat.

October Anniversary GS/A Tour, a low-key CCCV gathering has been planned to celebrate the 50th year of manufacture of this dynamic little car.

At 12:30 we will adjourn for lunch at the Grand Hotel in Healesville. Please provide the names, email



## A-Tractions

addresses and phone numbers of participants.

### • JANUARY 2021

Monthly Meeting:  
Combined CCOCA/CCCV/  
BBQ/Picnic

WHEN: Wednesday, 27  
January  
TIME: From 5:00pm

WHERE: Frog Hollow  
Reserve, Fordham Ave.,  
Camberwell.

COST: Free

BOOKINGS: Essential, by  
Monday, 25 January

BRING: Everything for a  
picnic/BBQ

CONTACT: Lee Dennes,  
04 3828 6181  
l.dennes@bigpond.net.au

As both clubs were unable to be together for the Christmas BBQ this gathering will give us the opportunity to catch up with each other in a pleasant outdoor environment in the warmth of a Summer evening.

### • MARCH

Combined CCOCA/CCCV  
Concours

WHEN: Sunday, 6 March  
TIME: TBC



2021 Citroën  
Concours  
d'Elegance

WHERE: Trey Bit Reserve, Jetty  
Rd., Sandringham

BOOKINGS: TBC

BRING: Everything you need for  
a picnic in the sun

CONTACT: Lee Dennes,  
0438 286 181  
l.dennes@bigpond.net.au

Keep an open for more de-  
tails closer to the date.

### • APRIL

Post Bendigo Cit-In Run  
2021

WHEN: Monday 5 to  
Thursday 15 April

WHERE: Central Victoria  
and Western District

FROM: Bendigo

TO: Horsham

VIA: Ballarat, Lorne, Warrnam-  
bool, Hamilton and  
Halls Gap

COST: TBA, see below

BOOKINGS: Expressions of inter-  
est being taken now

CONTACT: Brian James  
[03] 9728 5526  
0427 534 014

brianjamesphotography@  
bigpond.com with 'PostCit-In'  
as the subject

ENTRY FEE: The actual entry fee  
is a TBA right now. There may be

a small entry fee to cover some included meals, but no bookings have been made to date given the COVID-19 situation. If there is a small fee, participants will be advised, and this will be collected as cash in Bendigo.

ACCOMMODATION EXPENSES: All entrants are responsible for booking their accommodation and all other expenses. Full details are here.

BOOKINGS OPEN: Expressions of interest will be taken now.

BOOKINGS CLOSE: Again, Covid-19 has made planning difficult but adequate advance warning of booking closure will be provided.

• DAY 1 Monday, 5 April  
Bendigo to Ballarat 154km

• Accommodation Eureka  
Stockade Holiday Park. [2 nts]  
[03] 5331 2281

• DAY 2: Tuesday, 6 April  
In Ballarat.

• DAY 3: Wednesday, 7 April  
Ballarat to Lorne 158km

• Lorne Foreshore Caravan  
Park. [2 nights]  
[03] 5289 1382  
lorne@gorcc.com.au

• DAY 4: Thursday, 8 April  
Lorne and surrounds.



• DAY 5: Friday, 9 April.

Lorne to Warrnambool 207km

• Warrnambool Holiday Park  
& Motel [2 nights]

[03] 5562 5031  
info@whpark.com.au

• DAY 6: Saturday, 10 April  
Warrnambool and surrounds.

• DAY 7: Sunday, 11 April  
Warrnambool to Hamilton  
116km

• Lake Hamilton Motor Village  
& Caravan Park. [2 nights]  
info@lakehamilton.com.au

• DAY 8: Monday, 12 April  
Hamilton and surrounds.

• DAY 9: Tuesday, 13 April  
Hamilton to Halls Gap 96km

• Halls Gap Gardens Caravan  
Park. [1 night]  
[03] 5356 4244

stay@hallsgapgardenscaravan-  
park.com.au

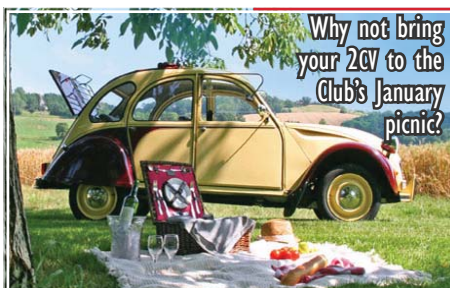
• DAY 10: Wednesday, 14 April  
Halls Gap to Horsham 80km

• Horsham Riverside Caravan  
Park. [1 night]  
[03] 5382 3476

horsham@southerncross-  
parks.com.au

• Day 11: Thursday, 15 April  
We all head home.

• Total distance 811 km





BENDIGO IS PART OF VICTORIA'S HISTORIC GOLDFIELDS REGION AND IS A TOURIST DESTINATION. THERE WILL BE PLENTY FOR ALL TO SEE AND DO INCLUDING HISTORIC TRAMS, CHINESE INFLUENCES, THE POPULAR BENDIGO FESTIVAL AND THE CHINESE DRAGON PARADE.

WHILE CIT-IN WILL BE CENTRED IN BENDIGO, AS PART OF THE PROGRAM YOU WILL ALSO VISIT SOME WONDERFUL HISTORIC TOWNS IN THE DISTRICT.

Distance from Bendigo

- Melbourne 153 km • Adelaide 614 km
- Canberra 620 km • Sydney 836 km
- Hobart 871 km • Brisbane 1,599 km
- Perth 3,316 km

The National CIT-IN April 2021, jointly organised by CCCV and CCOCA, will be held in the beautiful country town of Bendigo. The program and application form have now been posted on the CCOCA Website [www.citroenclassic.org.au](http://www.citroenclassic.org.au).

Now that lockdown has been relaxed there is likely to be a rush for holiday accommodation, so book ASAP. Our reserved accommodation was only being held until the end of July so please check

direct with the All Seasons Resort to make sure there is still accommodation available.

Book by phone or email only and mention CIT-IN to receive group rates. If you try to book online it could appear booked out or higher prices will be listed.

Here is a sneak preview of the event program.

#### Friday 2 April

- Registration at All Seasons Resort, 171 Mclvor Highway, Bendigo 3pm ~ 6pm.
- Welcome reception including

generous supper 6pm ~ 10pm.

#### Saturday 3 April

- Show & Shine, Bendigo Festival, catered lunch at the festival.
- Spit-roast dinner with country theme.

#### Sunday 4 April

- Observation run visiting historic towns in the region, picnic lunch.
- Formal dinner at All Seasons Resort.

#### Monday 5 April

- Full buffet breakfast at All Seasons Resort
- Farewell

#### Venue

All Seasons Resort Bendigo.  
[www.allseasonsbendigo.com.au](http://www.allseasonsbendigo.com.au)  
[03] 5442 8166

#### Accommodation

The resort has excellent rooms at competitive rates negotiated for the conference ~ but book early and mention CIT-IN for special rates. Alternative accommodation includes to Big4 Caravan Park about 3kilometres away.

#### Cancellation & Refund Policy

It is the organisers' intention that wherever possible a full refund of the registration fees will be provided up to 21.02.2021. However, after 21.02.2021 if you decide to cancel your registration then your refund cancellation fee will be \$25.00 per person. Please be further assured that every request outside of these guidelines will be considered on its merits and will be at the discretion of the organisers.

#### Cost [per person]

Early Bird [before 31.12.20] \$260  
Later bookings  
[01.11.20 - 31.10.21] \$275  
Just in Time  
[01.11.21 - 20.02.21] \$290  
Age 5 - 18yrs 50%

#### Information and application forms

[www.citcarclub.org.au](http://www.citcarclub.org.au)  
[www.citroenclassic.org.au](http://www.citroenclassic.org.au)

• It is important to remember this event is co-hosted by CCCV and CCOCA and by mutual consent all payments should be directed through the CCCV website. There will be more information coming soon from CCOCA.

This will be the first post COVID-19 national meeting and we strongly recommend every CCOCA member supports it. There is a possibility that the event may need to be modified closer to April but we are confident it will be substantially as displayed. We will keep you all informed.  
Regards  
Ted Cross ~ President,  
on behalf of the CCOCA committee

Over 100 registrations already received!





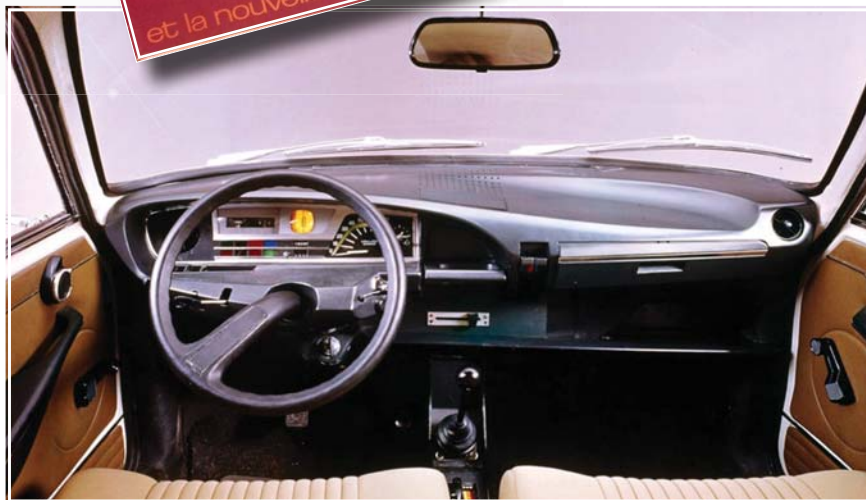
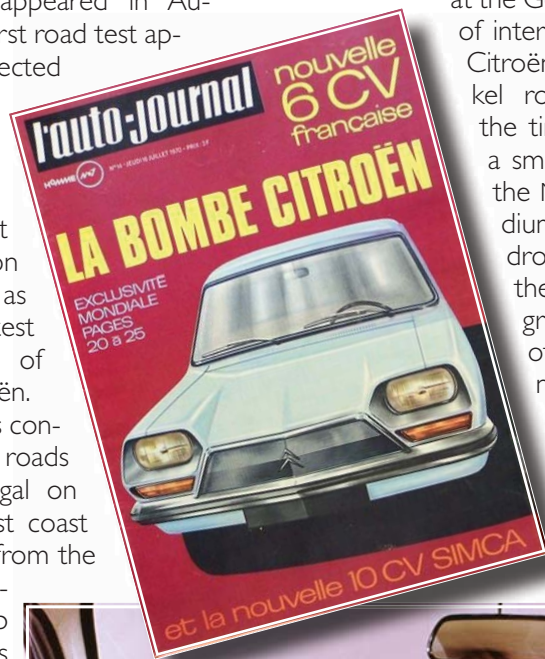
## Period Piece ~ 1970

On July 16, 1970, before the official introduction of the GS, the French magazine *l'Auto-Journal* published a drawing of the GS under the heading 'La Bombe Citroën'. The first official photographs appeared in August and the first road test appeared in respected French motoring journal, *l'Automobile*, published what it headlined on its front cover as the first road test in the world of the new Citroën.

The test was conducted on the roads around Donegal on the north-west coast of Ireland, far from the snooping cameras of scoop photographers from rival journals. Published in the September issue, the test followed a blurred photograph of the new car that had appeared in the magazine the previous month, and would

have whetted the public's appetite in advance of the presentation of the new car at the Paris Salon that year.

In many ways Citroën was really on a roll in 1970: the very glamorous SM had been announced at the Geneva Show; a great deal of interest was being shown in Citroën's version of the Wankel rotary engine, which at the time was being tested in a small Ami-based car called the M35; and news of a medium-sized car with the hydropneumatic comfort of the DS range caused very great interest. On the other hand, not all the news was good for Citroën: whilst the company had accounted for over 30% of the French car market in 1965, the large gap in the range between the small



2CV/Ami models, and the much larger ID/DS series, was hurting sales. *L'Automobile's* comparison of sales between the first six months of 1969 and the first six months of 1970 show Citroën slipping behind Peugeot for third spot. Renault, meanwhile, was very much consolidating its position as market leader: in the first half of 1970 its sales, at over 560,000, were more than twice those of Citroën. Whereas Renault and Peugeot sales had risen 15.2% and 19.5% respectively, Citroën had only managed a 9.7% increase. The new mid-range GS was, therefore, a vitally important model for Citroën.

It was with this thought in mind that *L'Automobile* commenced its test of the new car, mentioning 'les rumeurs' about the troubles that were facing the Quai de Javel because of the large gap in its range of cars. The number one

objective of the GS was to enable Citroën to forget its troubles, the magazine commented.

For the most part, the testers liked the elegance and practicality of the design. The simplicity of the car's outward appearance came in for much praise ['une distinction certaine'], as did such features as the large amount of luggage space that could be accessed via an opening designed to enable one to avoid having to lift items over the car's rear bumper. Likewise, Citroën's beloved single-spoke steering wheel was admired because of the excellent view it afforded of all the main controls. 'Les commandes de climatisation' [we'd call them climate-control these days] were also praised. Coming in for some criticism, however, was the speedometer: 'Originale, mais peu pratique' original, but not very practical. [The journal-

**The dashboard shown below left is from one of the pre-production cars that were driven by the journalists at the Irish launch. All production Continental-delivery cars had the multicoloured tachometer shown directly below**



ists responses to the dashboard ranged from the application of applied art while another talked about an incomprehensible and unwise choice. Ed.] This was the odd revolving drum device with a

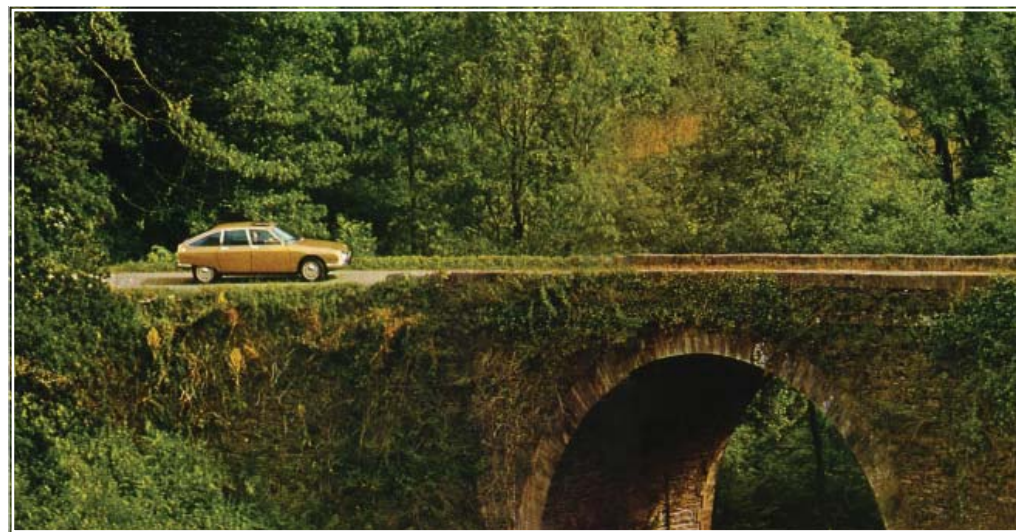


## Period Piece ~ 1970

permanently illuminated magnifying glass through which one could see the car's speed, The GS was not the first car sporting such an unusual speedo ~ the idea had first seen the light of day in the thirties, but had never really caught on. Citroën's revival of the gadget was certainly a talking point, but it did not prove particularly popular, and was dropped on later versions of the GS. [It should be noted that with the launch of the GSA the revolving drum speedometer and tachometer made a re-appearance. Ed.] Also coming in for a little criticism in those pre-anti-tobacco days were the small rear ashtrays!

So what did L'Automobile think of the car's 5CV 1,015cc 4-cylinder all alloy engine? Rather surprisingly given that the engine was air-cooled, the magazine particularly liked its quietness, helped no doubt by the very aerodynamic lines of the car. A top speed of 148.7kph was quoted, although it was admitted that this speed had not been reached on the test. The car's somewhat poor acceleration times, however, did receive criticism, as did the fairly high fuel consumption. [A heaviest fuel consumption of 13.4L/100km was recorded, and a best of 8.6.]

The centre-piece of the test



was a 345kilometre journey around Donegal. Given the nature of the roads, which were undulating, twisty and narrow, and were likened to those in parts of Brittany, the magazine was very impressed by the average of 70kph that was achieved on the journey. High praise was given for the car's front and rear disc brakes, road holding and the precise feel of the steering. A centrepiece of the car's appeal ~ its hydropneumatic suspension system ~ was highlighted in a number of detailed cutaway drawings and came in for much positive comment, though it was noted that the car had a slight tendency to pitch a little on some of the more tortuous roads,

The test quoted a price for the standard GS in France of 11,380 francs, the better-equipped Club version being 12,200 francs, Pric-

es included a guarantee for six months, which covered parts and labour. Prices for the highly advanced GS were at the top end of those for the cars that L'Automobile considered were its rivals. These included the Opel Kadett at 9,500 francs; the Simca 1200GL at 10,185; the Renault 12 at 10,480; the NSU 1200 at 11,700; and the Peugeot 304 at 12,180.

A rough translation of the test's conclusion was: the Citroën 5CV GS is certainly a car that, in its category, has the most attractive personality. The car confirms Citroën's wish to produce cars not like others ['des voitures pas comme les autres']. Comfortable, safe, the car will give much loyalty and enjoyment to the driver. Briefly, if the car's real qualities could be coupled with just a few more horsepower, it would be very close to being a true suc-



## Period Piece ~ 1970

This rural idyll featured in the 1973 GS brochure ~ all white suits and Zapata moustaches!



cess!

Having made reference to the fact the journalists drove [and Citroën photographed] a pre-production car for the launch, here for the real 'nerds' amongst us [and the Editor counts himself in that collective] is the list of exterior differences between the pre-production and launch cars.

- 24 wider ventilation slots under the windscreen instead of 38 narrow ones.
- the letters 'CITROËN' were widely spaced on the plate under the rear window, in line with 'old' house style. No chevrons, no 'GS'.
- an additional exhaust pipe rubber mount on the rear crossbar [who knew?]
- front bumper corner pieces with a smoothly extended end part

[similar to the bumpers the Birotor would later receive. [this escaped the Editor's notice and he still does not 'get it'.]

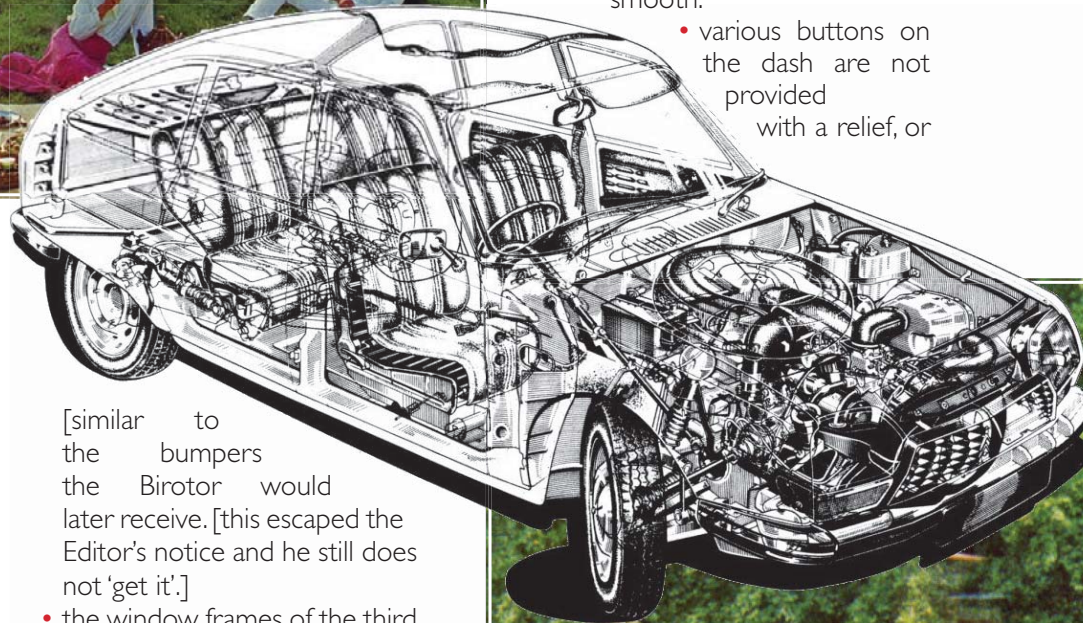
- the window frames of the third side window are mitre joined.
  - the wiper arms are fitted with covered fixing bolts, which were subsequently used from 1978.
  - an extra finishing piece at the end of the roof gutter.
- On the interior there were a further six differences.
- the rear doors are equipped

with separate ashtrays in front of the door handles.

- the doors have an additional horizontal decorative trim towards the bottom of the panel.
- the tachometer has a black background, a white needle and digits.
- the steering wheel has a ribbed relief on the single spoke.
- the front ashtray cover is smooth.
- various buttons on the dash are not provided with a relief, or

have a different shape.

These lists are from the Editor's new most favourite GS/GSA book 'Citroën GS & GSA' by Marc Stabèl and Julian Marsh, published by citrovisie [[www.citrovisie.nl](http://www.citrovisie.nl)]. A copy of this book has been offered for the Club's library. Contact Max Lewis to see how easy it is for you to borrow this book. Author: Mark Ebery, with additional material from the Editor. The majority of the images accompanying this article are from a 1973 brochure in the Editor's collection.



Of course picnics would never do for the promotion of the haute de gamme Pallas. The snobbish English clearly expected polo-players in that advertising. Interestingly the equivalent French brochure depicted golfers instead.

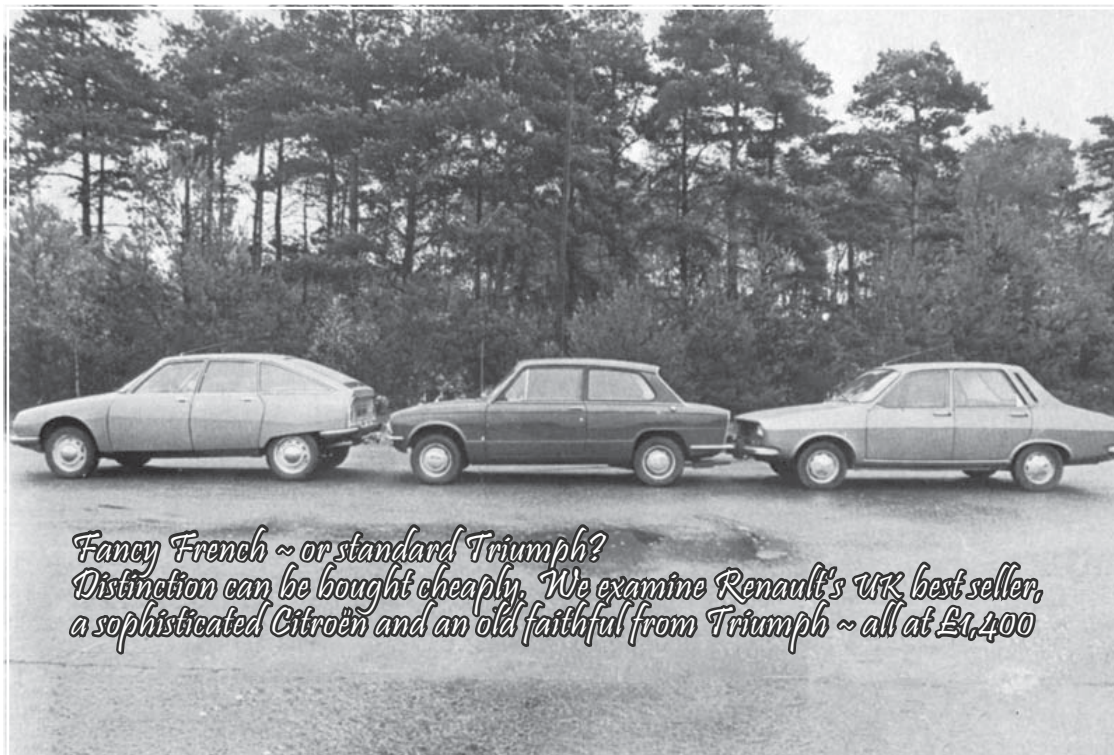




## 3 Way Split ~ 1975

The Citroën GS had been launched at the Paris Motor Show in October 1970 and been awarded the 'European Car of the Year' trophy in 1971. While the Editor has a 1973 review of the GS 1220 from 'Motor' in his

collection he has decided that something that allows a comparison with competitive cars of the era might be of more interest to members. This three way test from 'What Car?' in 1975 fits the goal. Ed.



*Fancy French ~ or standard Triumph?  
Distinction can be bought cheaply. We examine Renault's UK best seller,  
a sophisticated Citroën and an old faithful from Triumph ~ all at £1,400*

With petrol prices now standing at well over 60p per gallon [that's 26c/litre... halcyon days. Ed.], it is timely to examine some small cars. Over the past year quite a few motorists have been converting from their medium and large size cars to small ones and

finding the change surprisingly pleasant, for technical ingenuity is most marked at the extreme ends of the price scale. Some of the small machines from VW, Renault, Fiat, Citroën and BMC are as advanced in their way as anything from Ferrari, Lamborghini etc and far superior to



many of the more mundane medium priced and sized cars. [It is 1975 when this is being written and the 'European Car of the Year' was the Citroën CX, so all was not dreadful in the medium/large car space. Unfortunately, the best Wheels could do locally was award the Holden Gemini. Ed.] Small cars are no longer cheap by any standards and the three chosen for this test are certainly not among the cheapest for they all cost around £1,400. The Citroën G Special is the cheapest in the GS range because it retains the original 1,015cc engine and lacks some of the luxury touches of the 1,220cc models. It retains the hydropneumatic suspension, four-wheel power-assisted disc brakes and all the other advanced features of the GS range. It sells for £1,416. The Renault 12TL is second from the bottom of the five model 12

range, but this front-wheel drive 1,289cc machine has most of the equipment of the more expensive versions, except for a 40kW instead of 45kW power unit. The 12TL costs £1,443. The Triumph Toledo is a relative of the now defunct front wheel drive Triumph 1300. Triumph decided to revert to a less advanced specification for the Toledo and 1500 models, retaining a live axle with rear wheel drive but also keeping the high standard of interior trim. Our test car was a two-door model costing £1,370 but the most suitable competitor for the Citroën and Renault [both four door cars] would be the four door Toledo at £1,419.

### Performance

Not a great deal in the way of performance can be expected from these small engined cars. The Toledo engine gives 43kW



## 3 Way Split ~ 1975

the Renault 40kW and the Citroën 40kW. By virtue of its greater freedom to rev, the Citroën keeps up with the other two cars up to 80kph, and actually moves ahead above that speed. The Citroën gets to 113kph [70mph] in 23.6secs compared with 25.8secs for the Renault and 26.4secs for the Toledo, which is pretty slow going by any standards.

Even to achieve these figures it is necessary to drive very hard through the gears so it can be seen that anyone moving down from a bigger car is going to have to sacrifice some performance. The engines let the driver know they are working hard too, for all three units are noisy when pressed, the Citroën perhaps being slightly the worst because of its air-cooling and lack of a sound deadening water jacket. However, the flat-four Citroën engine is subjectively smoother than the in-line four cylinder units of the Triumph and Renault and it cer-

tainly revs to its 6,500rpm maximum with great ease.

Flexibility is not a strong point of these cars either as top gear performance is mediocre to say the least, so those who are stepping down from larger cars will again discover that they have to work a little harder with the gear lever to keep the car rolling along.

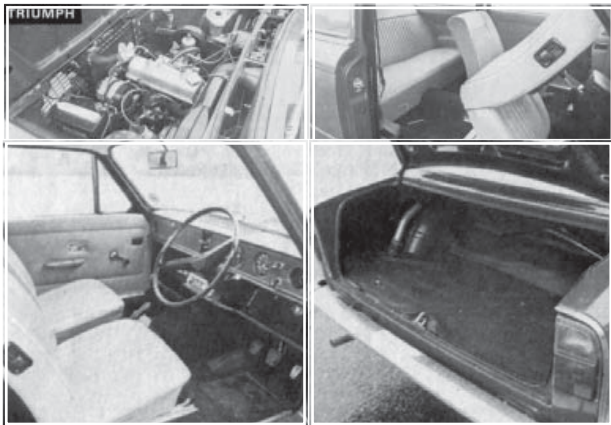
The Citroën is lower geared than the other two cars, which partly accounts for its willingness to rev but in turn this does create some fussiness for the car will not reach 50kph in first gear or 110kph in third, whereas the high geared Renault will almost encompass 65kph in first, almost 100kph in second and a healthy 117 in third. The Triumph falls midway between the two as far as gearing is concerned but on the road the engine tends to feel rather fussy because of its lack of refinement.

Top speed of all three cars hovers around the 145kph mark depending on road conditions, but the Toledo is really only happy up to around 135kph, by which time the engine is sounding thor-

From top left, clockwise: All items on the Toledo engine requiring routine maintenance are easily accessible.

Entry to the rear seat posed no real problems. A four door model is also available

Wood veneer facia adds a touch of class. The boot of the Toledo is rather small



From top left, clockwise: The air-cooled, flat-four engine is partially concealed by the spare wheel.

Rear passengers are well catered for with ample legroom and comfortable seating. Comprehensive instruments are clear.

Low sill eases loading of the large boot

front wheel drive cars are less pleasant than that of the Toledo because of the apparent tenuous connection between gear lever and cogs. The Citroën's gear lever is especially vague, requiring quite a lot of movement across the gate while the actual engagement is rather uncertain. The Citroën gearbox is also rather noisy with a good deal of whine when accelerating in the gears and some rattling when idling.

The Renault's gear lever is rather rubbery but actual engagement is reasonably precise. The Toledo's gear lever feels as if it has some direct connection with the gears and the change is

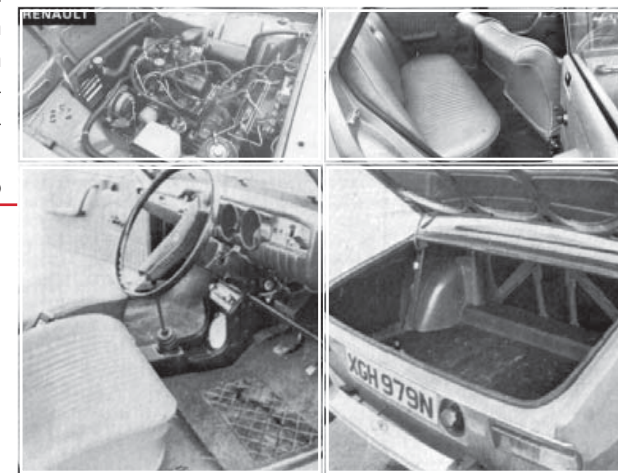
oughly uncomfortable. Both the Citroën and Renault will touch 145kph but only the insensitive would attempt to cruise at much over 130kph.

Our test Citroën proved to be a very poor starter, requiring several attempts before it burst into life, after which it needed a lot of choke for three to five km before it would run at all smoothly and idle properly. The Renault engine was emitting an expensive sounding rattle when idling during our test but it performed well and had no oil pressure problems.

The gearboxes of the two

From top left, clockwise: Front hinging bonnet reveals 1,289cc engine with all components within easy reach.

Sumptuous seats provide a high degree of comfort. The rear seat has an armrest. Oddly angled pedals mar driving position. Boot of useful size marred by the high sill





## 3 Way Split ~ 1975

therefore precise although the synchromesh is a trifle obstructive. The clutch pedal pressure on all three cars is light, with progressive snatch free take up. The two front wheel drive cars tend to spin their front wheels under hard acceleration because of the rearwards weight transfer but this can be guarded against by more gentle acceleration.

### Road Holding

When the Citroën GS was heralded as Car of the Year nearly four years ago one of its most remarkable attributes was its road holding. This has remained unimpaired over the years, for the GS will go round corners faster than the vast majority of cars despite an initial alarming angle of roll which the driver soon learns remains constant. The soft, self-levelling suspension ignores mid-corner bumps completely, allowing the driver to get on with the business of cornering. The rack and pinion steering is not light yet it is accurate.

The I2 is softly suspended, too, on its steel springs but not as soft as the Citroën, so it does not roll as much, but it too soaks

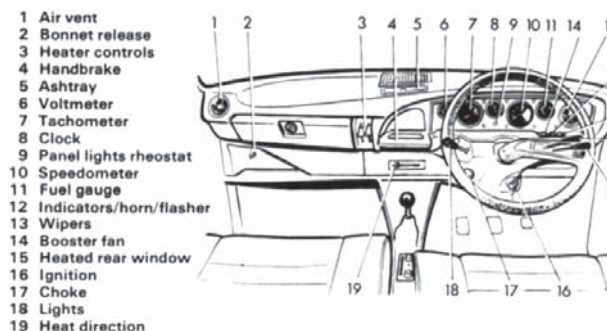
up bumps extremely well. Ultimate cornering power is not as high as that of the Citroën due largely to its tendency towards strong understeer which causes the steering to become rather heavy.

The Toledo's conventional suspension limits its cornering ability but within its limitations it handles well on smooth roads but hopping a lot on bumpy corners. The steering is reasonably light although a trifle low geared at nearly four turns lock to lock. Again, understeer is the Toledo's cornering tendency but it is quite manageable.

### Braking

The Citroën outshines the others because of its power assisted four wheel discs. The GS has a normal pedal unlike the DS's tiny button but the pedal feels rather dead as there is very little play in the pedal unlike conventional hydraulic systems. But when the driver stands on that pedal the car screeches to a stop very smartly. In fact it does it so well that Citroën were plagued by incredibly short disc pad life in the GS's early life. It is now more rea-

**The G Special's roadholding is of the highest standard. Renault handling inspires confidence despite body roll. The Toledo's safe handling is helped by precise steering. Facing page: Interior layouts of [top to bottom] GS, I2 and Toledo.**



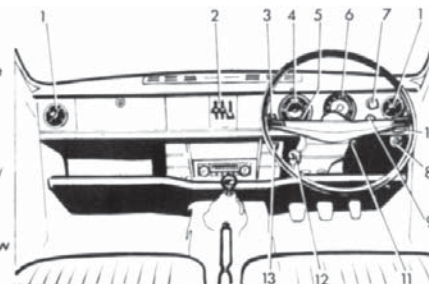
sonable but few fast drivers are likely to get more than 15,000km from a set of pads.

The Toledo originally had an all-drum braking system which was rather inadequate, but with the servo assisted front disc, rear drum setup the Toledo brakes very satisfactorily indeed, the light pedal pressure being just right for the car.

The I2 has front discs and rear drums in conjunction with a servo which gives good stopping power, although the car tends to nose-dive under hard braking.

### Ride Comfort

The Citroën has an outstanding ride for a small car because the soft self-levelling suspension eliminates all the pitching and jolting to which small cars are



so prone. It also has the added advantage of height adjusters so that the ground clearance can be increased for traversing rough roads or to jack up the car quickly. The only problem of any consequence is the rather high level of road noise transmitted to the interior.

The I2 is a comfortable car in which to ride for the soft suspension copes with most bumps very well, although not quite as well as the GS. There is some pitching over wavy surfaces but

generally the I2 is comfortable.

The Toledo is not quite so well served for the suspension is firmer, the wheelbase shorter, with the result that the car does jolt and hop very noticeably on bumps. However, for some people this may be preferable to the marshmallow ride of the Citroën.

### Accommodation

The G Special is finished in a garish orange colour both inside and out, the cloth trimmed seats of our fairly new test car show-



## 3 Way Split ~ 1975

ing signs of staining already. But they are very comfortable seats, offering soft cushions and backrests, well-shaped for location. The front seats recline fully and provision is made for headrests. The rear bench is adequate for two adults, cramped for three, but leg room is quite generous for a small car ~ certainly adequate for anyone up to 1.8m tall. Sensible rubber matting covers the floor while other trim is in PVC. Stowage for oddments is provided by a small fascia locker, small shelves below the fascia, a large rear parcel shelf and map pockets in the sides of the front seats.

The I2 is on a par with the Citroën as far as interior space is concerned. The front seats have oddly curved backrests but they are soft and comfortable as are the cushions. The backrests recline by means of tiresomely slow knurled wheels and there is no provision for headrests. The rear bench is designed for two as there is a large central armrest, but three could ride for short journeys. Seats are PVC trimmed but cloth trimming is an extra cost option. Stowage for small items is provided by a small locker on top of the fascia, a full width front parcel shelf and the rear parcel shelf.

The Toledo's seating does not look as opulent as that of the two French cars and experience

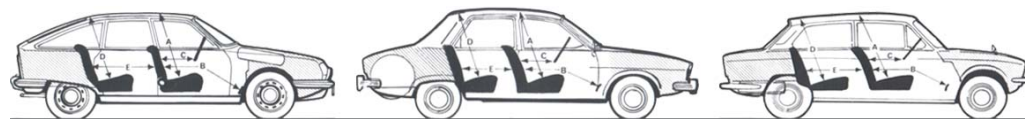
showed that the rather spartan PVC covered seats left some of our drivers with backache over long distances. On the two-door test car the whole front seats hinge forward to give access to the rear bench which will take two adults and leave quite acceptable leg room, while the body sides are recessed to provide armrests. Stowage is provided by a fascia locker, a full width parcel shelf and the rear parcel shelf.

### Equipment

The Citroën is equipped with a silver-finished instrument panel under a matt black cowling to mask reflections. The round, clear instruments include a tachometer, speedometer, ammeter, clock and a fuel gauge. With neat white lettering on a black background the instruments are very legible, only the ammeter being masked by the steering wheel rim.

The Toledo has a wooden panel in which the only instruments are the speedometer and dual purpose instrument for the fuel gauge and the water temperature gauge.

The I2TL has an aluminium panel in which are set three hooded dials; in the centre is the 160kph speedometer flanked by the fuel gauge and the voltmeter. The various warning lights are incorporated in the two outer dials. The Citroën is pret-



	G SPECIAL 1,015cc	RENAULT 12TL	TRIUMPH TOLEDO
<b>DIMENSIONS</b>			
A/D: Headroom [F/R]	91/86cm	99/84cm	94/84cm
B/E: Legroom [F/R]	85-100/65-81cm	76-101/58-89cm	81-97/64-79cm
C: Steering reach	29-45cm	19-48cm	35-51cm
Interior width	135cm	127cm	127cm
L x W x H	4.12 x 1.77 x 1.36m	4.34 x 1.61 x 1.44m	3.96 x 1.57 x 1.37m
Wheelbase	2.55m	1.83m	2.44m
<b>PERFORMANCE</b>			
Speeds in gears			
Maximum speed	145kph	145kph	140kph
Max in 3rd	108kph	117kph	113kph
Max in 2nd	72kph	92kph	84kph
Max in 1st	45kph	64kph	53kph
Acceleration			
0-48kph	5.4sec	5.0sec	5.1sec
0-64kph	8.8sec	8.4sec	8.6sec
0-96kph	18.4sec	18.0sec	18.4sec
0-113kph	23.6sec	25.8sec	26.4sec
Standing 400m	21.2sec	21.2sec	21.4sec
Terminal speed	105kph	105kph	105kph
Top gear			
48-80kph	13.8sec	11.6sec	10.6sec
64-96kph	14.4sec	13.8sec	12.2sec
<b>FUEL CONSUMPTION</b>			
Full test	10.3L/100km	9.9L/100km	10.1L/100km
Touring	9.5L/100km	8.8L/100km	8.6L/100km
Tank capacity	43L	44L	48L
Range	455km	500km	550km
Fuel grade	4star	4star	4star
Fuel for 25,000km	£330	£320	£310



## 3 Way Split ~ 1975

ty comprehensively equipped by small car standards. It has a good heating and fresh air ventilation system together with a heated rear window, two speed wipers, irritating non-cancelling direction indicators, a rather poor spade-handled facia mounted handbrake and well placed column controls for the lights, horn and light flashing. Other interior equipment includes a pair of sun visors, the passenger's with vanity mirror, dipping rear view mirror, combined door armrests/pulls, the rear ones having integral ashtrays. An ashtray is fitted on top of the facia.

The Toledo has sensible but not lavish equipment. There is a good heating system with fresh air ventilation by eyeball inlets on the facia, together with a heated rear window. A column mounted stalk looks after the direction indicators, horn, and light flashing. Facia mounted knobs are used for the headlights, wipers/washers and the choke. Other equipment includes a pair of sun visors [the passengers with vanity mirror], a rear view mirror, interior light, a pair of coat hooks, front door arm-rests/pulls, ashtrays in the front doors and rear body sides. The Toledo also has front quarter lights, a rather rare fitting on modern cars.

The I2TL is possibly the best equipped of the three cars for it has twin sun visors, one of them

with a vanity mirror, a dipping rear view mirror, grab handles for passengers, superb heater and fresh air ventilation with a heated rear window, door armrests/pulls on all four doors, ashtrays on rear doors, an ashtray on the facia, interior light plus an illuminated glove locker and boot, two speed wipers, cigar lighter, and well placed minor controls.

### *The Costs*

The standing costs of the three cars will be much the same, although the Toledo will be cheaper to insure than the two French cars. We found that all three will average around 7.8L/100km if the acceleration is not used to the full, but even with hard driving we could not depress the consumption below 8.7L/100km on any of the cars, while the careful driver ought to approach 6.7L/100km with ease. The area where the cars will diverge is in the matter of servicing and repair costs.

The GS has proved an expensive car to maintain even when it has been running well, and a serious fault is usually very costly to put right. The Renault is not as expensive to maintain but owners speak of only moderate life on the front drive shafts and consequent very high bills for replacements. In contrast the Toledo is simple and rugged, having no exotic components to go

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## 3 Way Split ~ 1975

wrong and even if they do they are cheap to replace.

### Verdict

The costs of motoring must be uppermost in many people's minds today and with this in mind the Toledo has a lot going for it, because as already mentioned it is going to be a lot cheaper to maintain unless some catastrophic faults develop. However, for the same price as the Citroën and I2 it does not offer much refinement or space and certainly cannot match either of them in ride or comfort.

The GS is of course outstanding in its ride and handling, offers excellent braking and interior comfort. Its gearbox is not very pleasant and the car can be noisy both through the engine and road transmitted noise. But its styling is still futuristic; it has a large boot and is quite a lot of car for £1,400.

The Renault is less futuristic than the GS, although its styling still looks odd even today. It does almost as well as the Citroën in ride, handling and braking but suffers from a noisy engine and a vague gearbox.

The Toledo's engine can be fussy, its ride is quite hard, the seats are only average, but it handles well and is easy to maintain. If we were not unduly con-

cerned with maintenance costs then there is little doubt that the Citroën is the best car of the group. If we wanted some of the advantages of front wheel drive without the Citroën's complications we would plump for the Renault, but if we needed a reliable uncomplicated car with a dash of style then we might stick with the Toledo.

### Editorial Aside

The British car buyer in 1975 was certainly looking to buy an uncomplicated car... I will leave the matters of reliability to one side and totally avoid the matter of style, which is such a personal matter. But I might remind you that of the top-ten selling cars of the period in the UK seven were uncomplicated. Ford's Cortina and Escort, BLMC's Marina and Triumph Dolomite, Vauxhall's Viva and Rootes Group's Avenger and Hunter accounted for over 70% of the sales of the top ten vehicles and 36% of the total market of almost 1.2million cars. Renault sold 56,000 units and Citroën just 22,000 that year. Even Toyota sold 20,000! Citroën UK accounted for only 3% of the brand's production. Having said that, 'big brother' Peugeot only managed to shift 16,000 cars that year in the UK. Ed.

This article, from 'What Car?' 1975, is from the Editor's collection.

	G SPECIAL 1,015cc	RENAULT I2TL	TRIUMPH TOLEDO
ENGINE	Alloy block and head	Cast iron block, alloy head	Cast iron block and head
No. of cylinders	4, horizontally opposed	4, in line	4, in line
Bore and stroke	74 x 58mm	73 x 77mm	73.7 x 76mm
Capacity	1,015cc	1,289cc	1,296cc
Valve gear	Single overhead camshaft per bank	Overhead by pushrods and rockers	Overhead by pushrods and rockers
Compression ratio	9:1	8.5:1	8.5:1
Carburettion	Solex 28CKM twin choke	Solex EISA 4	SU HS4E
Maximum power	40kW @ 6,750rpm	40kW @ 5,250rpm	43kW [DIN] @ 5,500rpm
Maximum torque	70.7nM @ 3,500rpm	88.4nM @ 3,000rpm	92.4nM @ 3,300rpm
Cooling	Air	Water	Water
Main bearings	3	5	3
Brakes	Hydropneumatic powered	Hydraulic	Hydraulic servo-assisted
Front	25.5cm discs	22.9cm discs	22.2cm discs
Rear	17.5cm discs	17.8cm drums	20.3cm drums
Wheels	4½J x 15	4J x 13	4J x 13
Tyres	145-15	145-13	155-13
Body construction	Unitary	Steel unitary	Unitary
Steering	Rack and pinion	Rack and pinion	Rack and pinion
Powered	No	No	No
Turn, lock to lock	3.7	3.5	3.75
Turning circle	10.4m	10.0m	9.1m
SUSPENSION			
Front	Independent with double wishbones, hydropneumatic struts with rear interconnection	Independent with double wishbones and coil springs, telescopic shock absorbers and anti-roll bar	Independent with coil springs, double wishbones and telescopic dampers
Rear	Independent with trailing arms, hydropneumatic struts with front interconnection	'Dead' axle with radius rods, A-bracket, coil springs, anti-roll bar and telescopic shock absorbers	Live axle with coil springs, 4 links and telescopic dampers
TRANSMISSION			
Clutch	17.9cm diaphragm spring	17.0cm diaphragm spring	16.5cm diaphragm spring
Gearbox	4-speed all-synchromesh	4-speed all-synchromesh	4-speed all-synchromesh
Ratios	3.82, 2.38, 1.52, 1.15 to 1	3.46, 2.24, 1.48, 1.04 to 1	3.504, 2.158, 1.394, 1.0 to 1
Final drive	4.12 to 1	3.77 to 1	4.11 to 1
kph/1,000rpm in top	23.0	27.0	n/s
Weight	853kg	848kg	864kg
Price	£1,416	£1,443	£1,370



## Member's Model: 1977 GS Pallas

### Andrew & Sue Cunningham

I have been a member of CCOCA for 20+ years since wondering what Citroën to acquire in addition to the 2CV I had had since 1998. I was 'hanging around' a CCOCA event in Mt Gambier. I remember picking peoples' brains about what would be best for me, living in country Victoria with no mechanical skills at all. What I really wanted was a CX which I remember noticing for the first time from a bus on a trip in Europe in 1975. I just loved that shape [style!] and still do, but the wise folks in CCOCA suggested a GS would be more appropriate for me!

As far as membership goes, I have only been an occasional participant but love the magazine!

I first saw and photographed a 2CV in St Tropez in 1974 and thought of it as a sardine can and still have the photo. We were actually touring Europe in a Renault 5 we had bought in the UK with the intention of bringing it back home the following year. We had already checked out a beautiful green GS Break that was being sold by an older lady in a fashionable inner suburb of London. We took it for a drive but I was not expecting the semi-automatic and I am glad we did not buy it as the new R5 was amazing and very economical. This was impor-

1] Andrew's Citroën love affair began when he and Sue saw this 2CV in St Tropez. Truly an 'ugly duckling' in a gorgeous location. In the background a Simca 1000, a Méhari and a British-registered Peugeot 504.

2] They were driving a Renault 5 at the time. This Renault publicity photo from 1971 suggests the world drove Renaults. Well, except for the Peugeot 504 in the corner.

3] right to left: Glady, Nidy and Andrew's Renault 16, Dijon, sharing the carport.



tant; it was at the height of the oil crisis. You know I really cannot remember what made Sue and me interested to even look at a GS. Clearly, I have loved the shapes of CX, GS and 2CV!

My first Citroën was in fact a 2CV which I bought in late 1998, having seen them in Europe in 1974-5. I had been in the rather expensive habit of getting new cars with a clear preference for European marques. But as I could not afford Mercedes I had owned a Volvo, two Saabs then some very practical cars for us in Stawell, namely Holden Commodore! My good friend and car adviser told me in the late 1990s to stop buying so many cars and get a 'classic'!

I did obey his instructions and in 1998 bought a blue Fiat XI/9, called Fifi and I still have her and get much pleasure, and occasionally much expense, due to her!

The idea of a 2CV came to mind early. I initially actually looked at one in Eltham in late 1998 and test drove it for the first time and could not make up my mind whether it was a car or a tractor on a farm! My friend managed to source Nidy, as I call her, in Sydney where he lived. The Australian owner had driven her in UK for several years before bringing her to Sydney. I had her trucked down just before Xmas 1998 and delivered to my niece's in Clifton Hill. Sadly, when she



## Member's Model: 1977 GS Pallas

was being backed off the truck, she missed the plank and landed heavily on the front bumper and bent my baby!

Two days later which was a rather remarkable Boxing Day with foul weather sufficient to destroy the Sydney to Hobart yacht fleet and wash out the test cricket, I decided to drive back to Stawell. This was not a good idea, as you will read. Sue was behind in our waterproof, reliable Holden Commodore whilst I headed along the freeway in very heavy rain for my first serious drive in a 2CV. Well, the unmentionable happened on the Tullamarine freeway when I was doing a noisy 80kph and the hood flung back, allowing me to be drenched in a few moments. I then discovered the importance of making sure both the roof latches are secured. I had a truly miserable, cold, trip back home over three hours but was thankful to be home safely. I called her Nidy because her NSW number plate was NID, but of course, she shortly had to put onto Victorian registration.

I have had a lot of fun in Nidy and still smile when I see her! She has been on ½ of the Raid 2000 and the full Raid 2004. My friend Derek and I had planned to leave Raid 2000 in Cairns, whilst the rest went on up to Cape York. Instead of Cape York, we were joined by our wives for a glorious



week in Port Douglas!

In this pandemic this seems a distant impossible dream. However, the adventure continued because then Sue and I had a week to drive home to Stawell, on our own without the safety and mechanical security of the Raid. As it turned out it was an amazing experience to share visiting places I have not been to before or since, such as Charters Towers, Carnarvon Gorge, Roma, Bourke, Cobar... In Deniliquin, on the final night of this trip, my back finally decided to explode and left me watching the opening cer-

emony of the Sydney Olympics flat out on the bed!

Nidy has been wonderful in the bush around Stawell where I take her on tracks suitable only for 4WDs. Of course, she is the only 2CV in the area and being two-tone yellow/grey is really hard to hide.

Well enough of Nidy and onto my next Citroën purchase, the 1977 GS Pallas I called Glady after her owner, Mrs Glady Ball whom I gather had a collection of Citroëns.

At that time, perusing 'The Age' on a Saturday morning was the





## Member's Model: 1977 GS Pallas

way to keep a lookout for used car temptations and this applied to my quest for a GS in 2000. I looked at several but when I finally saw Gladys in the stables of an old mansion in Williams Road, Windsor, I was in no doubt I needed her. She had two lady owners, had been barely used and was in lovely condition for a 23-year old car with 67,000km on the clock. I still remember the owner's daughter, Anthea, emphasizing repeatedly that the GS 'was a Pallas you know! I believe I am not a snob but it is a Pallas you know and should not be seen anywhere near mere 'Clubs'. Do not even mention the words 'Spécial' in her company!

Nic from La Ville Motors brought Gladys up to scratch and made sure I could be confident to go west to Stawell ~ 225km from the nearest Citroën mechanic! Gladys has always been a beautiful cruiser and handling to match the XI/9 but never a car to accelerate hard from the lights.

[Ed. Andrew, compared with a C-Matic, you do not know what a speed-demon you can be.] Luckily we have no lights in Stawell and I must add, no parking meters either [what bliss you say]. I have followed Nic from La Ville in Hawthorn to Cars of France in Darebin and then nearby to Darebin Tyre Centre where Nic still helps out the owners at times.

I did have a particular problem when a curved inlet pipe between carburettor and air inlet needed replacing. Sadly whilst the local mechanic waited for a new part to be made in Ballarat, he left her in the inland sun too much and her steering wheel was damaged.

In the end, my Sydney friend suggested contacting European Autocare in Penrith who sent the part quickly and Gladys was back on the road. I never thought, at that time, to try sourcing parts from Europe such as Fran-

zoes in Germany! [[www.franzose.de/en/Home/](http://www.franzose.de/en/Home/)] In those few years, the world has shrunk courtesy of internet!

Later I had to replace the driver's window which broke in mysterious circumstances. Sue and I went out to the Grampians on the old train track and got through it easily. When we got home discovered that a Pallas hubcap had been lost. Oh no, that certainly will not be sourced in Stawell, but European Autocare supplied the missing part!

It was a rough track but Gladys, being a GS, managed. But wait, there is more. It was January and a few days later we had a message from my mother-in-law telling me of the mysterious breaking of the door window. It certainly was fine when got back home after the drive, so I can only imagine it had been stressed in some way. We assumed a wicked van-

dal had got to it in the night. Anyway, the local windscreen people could not help! A call to European Autocare did the trick and saved the day.

Gladys has been an expensive car to maintain and not particularly economical on petrol, but who cares? I love looking at her and she is superb to drive on the open road but also pretty good on rough roads or winding Grampian roads not far from home.

I am missing Gladys as I write this because she has been in Melbourne since February for an overhaul and repairs to the front end. The pandemic has messed the process up and of course, even though she is ready, I am not allowed down to collect her. I am sort of grieving, which is truly embarrassing. It is hard to admit that a grown man could be so attached to a collection of bits





## Member's Model: 1977 GS Pallas



called a car! But as discussed in a recent edition of 'Front Drive', Citroën does style and I reckon the GS is almost equal to the CX for style.

If I make an ever so slight criticism of the GS Pallas, I would prefer the single headlights as on the mere Club to my double headlights! There, I have had a whinge and feel guilty. Fancy being negative about a little thing like the style of headlights when there is a pandemic in full swing! Maybe by the time GS edition of 'Front Drive' happens, the pandemic maybe just a memory?!

Sue and I did drive Gladys via Lake Conjola, NSW where we spent a couple of nights with Tom and Helen Campbell and on to Sydney to stay with Rover friends. This is the longest trip we have made in Gladys, but it was a lovely drive coming home via the Hume Freeway/Highway.

As for other Citroëns, I could not resist the ever present desire for a CX any longer. In 2003 I took the plunge on a 1985 CX2.5 Pallas 3-speed automatic which I bought in Camberwell. She proved to be a complex car for me and kept the local auto electrician busy for some time and helped his superannuation savings a good deal. Gabbie, as I called her, was certainly a lovely limousine-type car to drive but not as sporty a feeling as the GS and I thought the 3-speed auto-

matic was dated by the time I got her in 2003.

I did offer to lend her to my brother from WA for a touring holiday in Victoria but the morning he was about to leave Melbourne it had a major hydraulic leak. To quote my niece's husband, who witnessed this catastrophe, 'it pissed fluid!' This further confirmed his misgivings regarding Citroëns and my brother had to get a hire car!

I continued to admire the CX's style but better to look than to leave home too much and I realized it was not the right car for me in Stawell as I had been warned by CCOCA folks in 2000 or thereabouts! I literally gave her away to my cousin in Melbourne but I later heard she had failed him on the Westgate Bridge so he swapped her for a DS and now has gone to a Peugeot 203!

Over the years I have had a 1974 Rover 2.5 4-speed, a Morris 1100, a 1987 Mercedes 300e, a 1977 Saab 99GL Combi Coupe, a 1987 Saab 9000GLE new and a 2007 Citroën C4 new, to mention some of my auto wanderings! My current stable of what a call 'toys' comprises [in order of acquisition]:

- 1980 Fiat XI/9
- 1981 Citroën 2CV
- 1977 Citroën GS Pallas
- 1974 Renault 16TS
- 1988 Saab 900 Turbo aero





## Member's Model: 1977 GS Pallas

I am forever grateful to Vicroads for the permit system which has my five cars on the roads for about the cost of fully registered car. I am not going to complain about nothin'! My accountant friend is convinced I am very good for the local economy of mechanics, auto electricians, panel beaters and auto pro shop!

Sue, my wife, is long suffering but copes somehow but has had some disappointments over the years with car failures in awkward places. Things like the 2CV engine blow up on the Pentland Hills as we attempted to drive home af-

ter a service and the Saab refusing to re-start in Ballarat!

Now some more detail re the Renault 16 as you requested Leigh. I had noticed this local 16TS over the years because it was owned by Rod in the local musical comedy group. I never dreamed that the car would be mine one day. Well, Sue and I bought a new Peugeot 307 and I started observing Peugeots in Stawell and eventually I noted Rod driving a new Peugeot 308 wagon and I just wondered what had happened to his R16.

I must have bumped into him

somewhere and asked him. No, he had not traded it in and yes, he still had it on his property near Stawell. It turned out it had originally been his wife's car that they had bought new in Richmond in 1974 and had done 300,000km without trouble. Naturally I went to have a look and was amazed at how well preserved the interior was with perfect vinyl seats and uncracked dash! I bought it then in 2008 and have had Dijon [mustard coloured classic '70s] as I call him as my golf car. I did get inertia real belts fitted and lamb-swool seat covers added and still love driving him especially on the

open road. It really is an amazingly comfortable cruiser and quite a pacer with only 1,600cc motor. To be honest I think the R16 is really ugly. So for style I award it one out of ten but for design, ooh I reckon nine out of ten!

Well Leigh I reckon that is enough ramblings! I will send some photos of the R16. I presume you have enough photos of the GS. Do you want photos of the 2CV and CX? If there is I thing I like, it is keeping photos of my cars on the computer! Maybe I am just a teensie weensie bit obsessive!!

Andrew Cunningham



## Inside the Car of the Year

One of your editor's favourite parts of his job is the opportunity to share with members some of the best automotive writing in the world... ever! Many of these brilliant penmen wrote for 'Car' magazine in the 1980s. Russell Bulgin, George Bishop and Philip Llewellyn; they all spring to mind. Of them all, my favourite was [and remains] LJK Setright. Setright was born in London, the son of Australian émigrés. His mother Lena was a fashion buyer and his father Henry an engineer, who invented the Setright rotary bus ticket machine and the Tote betting system. He began his working life as a lawyer, but

grew to hate the life and in 1961 joined Britain's largest engineering magazine and quickly became its editor.

Writing about engineering led him to cars and the job at 'Car'. The fact that he did not train as an engineer did not hamper his ability to talk about technology with the most talented people in the car industry.

I knew he had written an article about the GS after it won the Car of the Year. But, despite extensive searches of the internet I have never found it. Then out of the blue our French correspondent, Alan Brown, emailed a copy to me. I will let him take up the



LJK SETRIGHT

## Inside the Car of the Year

story:

'As a young chalkie in Staffordshire mid-1970s I was tasked with motivating recalcitrant mining village kids into learning French. We had [a] properflash reel to reel Tandberg language lab and a filmstrip projector. The girls were no problem. Most of the lads thought French was not very... manly. Solution was to get them yarning about... automobiles. Plus ça change, I hear you quip. We wrote to Citroën in Paris and in Slough. The guff from Berkshire kept us gainfully occupied all term.'

Among the material was Se-tright's GS article. Hoorah! For Front Drive this is a very long article and I trust readers will forgive the fact that as a result I have used a slightly smaller font.

According to Voltaire, the secret of art is to improve on nature. It is a peculiarly French attitude, one that is manifested as much in their engineering as in their graphic, plastic or musical artefacts. In their automotive engineering it is especially apparent: indeed it, together with that remorseless Gallic logic upon which I have commented from time to time, may be held responsible for the utterly individual looks and behaviour of French cars, which are like no others upon the face of the earth. It is not enough that they improve on nature: they disarm all opposition by summoning

the aid of nature in order to defy natural laws, in a wild philosophical merry-go-round that leaves the meaner intellects of the English-speaking automotive industries, and the excessively practical practitioners in the others, gasping and baffled. It is natural that a car should roll when cornering, natural that it should become unstable when braked hard on a downhill gradient on a slippery and uneven surface, natural that it should sink under a heavy load, bounce on bumps, pitch on stopping and starting, create audible disturbance when travelling at high speed. All this may appear commonplace in our everyday driving, but the GS resists the commonplace.

Thus to confound nature has for some time been part of Citroën's stock-in-trade. The original front-wheel-drive Light 15 of 1934 started them on their iconoclastic way, and the imperishable DS of the late 1950s established them as the world's leading technocratic freethinkers. But the DS was a fairly expensive car and the cheaper variants that followed were not all that much cheaper. So although the big Citroëns continued to be an example to the world, they could not be said to have had a marked effect on it. Nor, while the utility-futility Bijou and Ami represented Citroën's contribution to working class mobility, could it be imagined that the pioneering that went into the big DS might find more general recognition. Even as recently as the spring of last year, when the Maserati engined SM

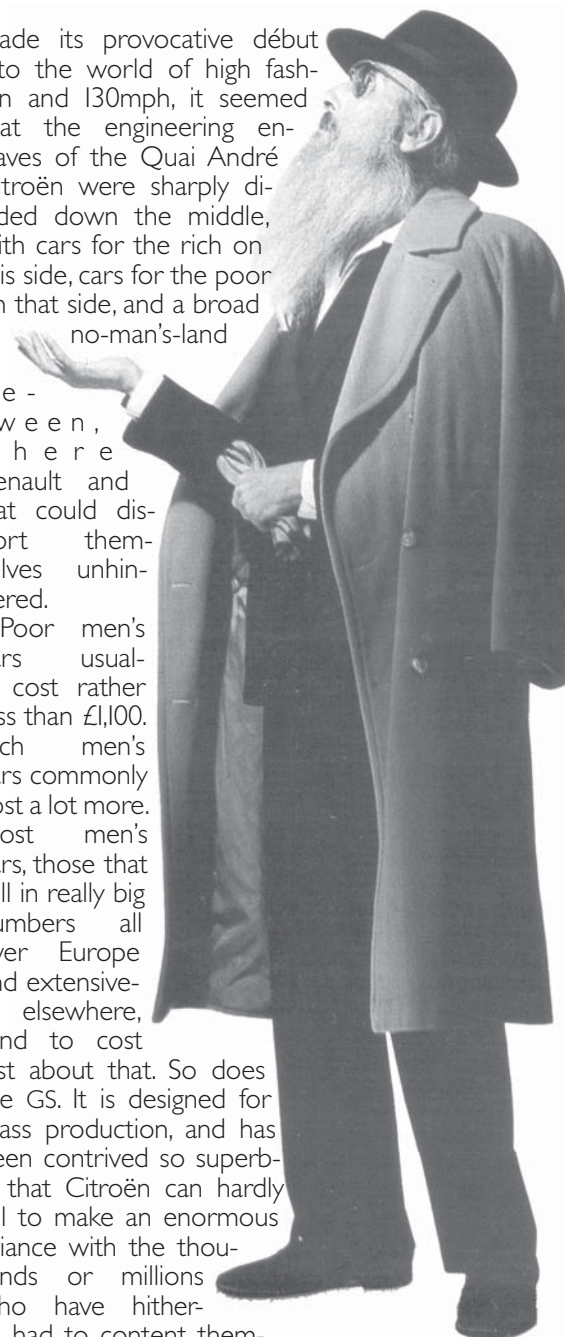
made its provocative début into the world of high fashion and 130mph, it seemed that the engineering enclaves of the Quai André Citroën were sharply divided down the middle, with cars for the rich on this side, cars for the poor on that side, and a broad no-man's-land

between, where Renault and Fiat could disport themselves unhindered.

Poor men's cars usually cost rather less than £1,100. Rich men's cars commonly cost a lot more. Most men's cars, those that sell in really big numbers all over Europe and extensively elsewhere, tend to cost just about that. So does the GS. It is designed for mass production, and has been contrived so superbly that Citroën can hardly fail to make an enormous alliance with the thousands or millions who have hitherto had to content them-

selves with hum-drum conventional boxes-on-wheels. Without surrendering their aristocracy, Citroën have found the common touch and motoring will never be quite the same again. You will remember from reading your Suetonius that the proudest boast of Roman Emperor Augustus was that he had found the city brick and left it marble. In the same vein, Citroën may claim to have found the automobile a motorised cart and made of it a magic carpet.

There is something special that shines through the whole design. I am not sure whether to describe it as confidence in themselves or utter contempt for everyone else, but in either case Citroën are probably right. Look at what everybody else is doing in the small-to-medium car market: either they are making tailgated pseudo-estate cars, or they are churning out hoary old triple-box shapes that are either wastefully styled in the American fashion [for swank] or left aggressively rectilinear [for thrift]. So along come Citroën with their GS, which has a superbly airflowed shape offering roughly half the wind resistance of the typical modern wheeled box, as much interior space for passengers and luggage, looking quite large and yet proving to be 15cm shorter than a Cortina. [Ed. To put that into today's context it is 51cm shorter than a Toyota Corolla sedan. That's TWENTY inches shorter!] It has a sloping bonnet, sloping cropped tail, curved side panels and window glass, and being a front-wheel-drive car [of





# Inside the Car of the Year

course!] it has a fairly smooth underbelly. There are several other cars that can claim all or most of these attributes, but none that are not Citroëns can rival the GS in aerodynamic efficiency. Citroën say that its coefficient of penetration is 15% better than that of the DS which was once, along with Porsche and Bristol, one of the 'world's best-shaped cars'. On this basis the drag coefficient of the GS ought to be about 0.27 ~ though it rather depends which DS they were talking about. If they meant the original one, we could mark the GS down to 0.33, which is a lot less clever. So let us have recourse to the MIRA rating method for assessing vehicle drag coefficients, an apparently arbitrary method which has proved accurate to within 7% in the radiator-blanked condition except that the DS cheated them by having an actual coefficient of only 0.311, a lot lower than The Method predicted. Applying The Method to the GS, the answer comes out at 0.293, and the 7% tolerance could bring it down to 0.273, so Citroën are probably telling some sort of truth. Not that I resent it: only because it is so amazing a truth are we grudgingly slow to admit that this has been

**Grouping the main mechanical components ahead of the front axle has resulted in a notably spacious cabin plus a large and unobstructed luggage compartment, aided by the trailing link suspension.**

achieved. [Ed. It does seem to be generally agreed that the DS had a drag of 0.36 and GS of 0.31.]

Too many people seem to have forgotten the importance of low drag. Obviously it assists towards achieving a high maximum speed on a given power supply, or a low fuel consumption at a given speed. It does more: it liberates a relatively greater amount of surplus power for acceleration or hill-climbing at high speeds. For example, the GS can do 120kph on a mere 22.4kW ~ but if you floor the accelerator at 120kph the engine develops 37.3kW, so there are 15 to spare for acceleration. In brief, the surplus tractive effort is two-thirds greater than the resistance to motion at that speed. If the car had a drag coefficient perhaps one-third higher [which would still make it good by current family car standards] then it would need 30kW to travel at 120kph, leaving only 7.5 to spare. In other words the surplus tractive effort would only be a quarter of the resistance, and the capacity to accelerate from 120kph drops by something like 60%. So when you relate the size and

weight of  
t h e

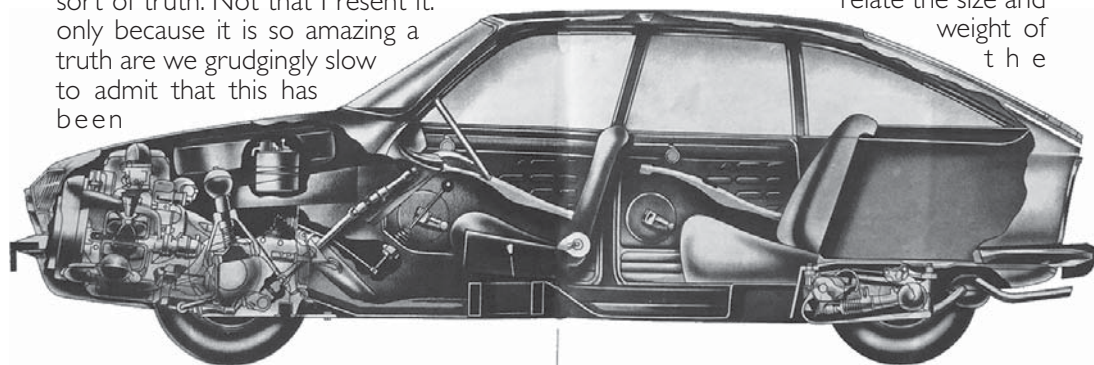
GS to its torque and power, do not judge it by the standards of its contemporaries: it may not be good at those traffic-light sprints which are such temptation to the vulgar, but it is far better than you might expect at speeds beyond 80kph, which is what matters to the earnest driver.

There are only two disadvantages to good streamlining, if we may use this old-fashioned term. One is that streamlined bodies are usually heavy, and in the days of separate body and chassis this was probably true ~ but it is not true today. The other is that a well-streamlined body usually creates directional stability problems in crosswinds, due to the tendency of the aerodynamic centre of pressure to move ahead of the centre of gravity. In a front-wheel-drive car this is no problem anyway, for the centre of gravity is necessarily well forward. [Incidentally, I was chided for saying this in a five-year-old article in 'Car' by a speaker in the 1969 Symposium on Road Vehicle Aerodynamics at the City University ~ but though what I have said is not the whole truth, it is still true, and everybody contradicted everybody else so often during that symposium that I do not mind telling you that I suspect a maleficent paradox in the fellow's alternative theory.]

The GS body is cleverly built on principles that hark back to some of the old ideas of a chassis without actually involving one. There is a sort of substructure consisting of a floorpan with side sections attached to rails and side panels

to form longitudinal torsion members, braced at the front and rear of the passenger compartment by very stiff sheet fabrications. These are in turn connected by tubular cant rails running through the roof and screen pillars, the whole thing having a reasonable continuity of stress distribution when the vehicle is in motion and, according to Citroën, providing efficient protection for the passengers in a prang. If the ride and roadholding are anything to go by, the beam and torsional stiffnesses must be ample ~ though alternatively the proper criterion may be the behaviour of the door-locks, in which case the torsional stiffness [especially remembering that big tailgate opening] must be suspect.

What is more surprising is the spaciousness of the body interior. This is not always something that you can enjoy in a streamlined body, where headroom is wont to disappear at the back and where shoulder room is often scarce. Bearing in mind the external shape and the substantial structure, the GS is jolly spacious, getting as near to being a genuine five-seater as any of the umpteenth 4.5seaters in the 1.5litre family market. There is luggage space too, good ample sensible luggage space taking the form of parallel-epiped with no useless nooks and crannies ~ not even an obstructive ledge over the rear bumper, for that rises with the boot door. Therefore the 16 cubic feet of luggage space will truly take 450litres of luggage, which is the deuce of a lot. Citroën tell me that the boot



## Inside the Car of the Year

will accommodate a barrel of 71cm diameter, and it may be coincidence or the suspicious workings of my tyre conscious subconscious that this is equivalent to a complete set of wheels and tyres for a DS. Is the GS a rally-support car in disguise?

If it were, they would not have taken such pains to make it so eminently habitable a car. Lots of soundproofing appears to have been done, not only of the conventional sort but also in the elimination of noise induced by tyres and suspension, not to mention the substantial elimination of the expected engine noise ~ and this is no small accomplishment, for the engine is air-cooled. Why? Because it is intended to run for at least 160,000km without major overhaul. Air-cooling makes it possible to eliminate many of the sources of common premature breakdowns. There are no head gaskets, no water hoses, no fan belt [the fan is driven directly by the crankshaft], no sensitivity to ambient air temperature. Incidental benefits ought to include rapid warm-up [though I know some water-cooled engines that are quicker], low cooling parasitic loss [but see what we say later about the fan losses], considerable saving in space and weight through elimination of the water radiator and header tank, and improved overall aerodynamic efficiency because the cooling air throughput is smaller than is necessary for an equivalent water-cooling system. Disadvantages are that an oil cooler of a good size is necessary,

that the provision of hot air to the passenger compartment is erratic and feeble, and of course that [as everybody knows] air-cooled engines are noisy. Except this one.

However the noise manifests itself, reasoned Citroën, it always starts in the combustion chambers so they made the cylinder heads very rigid. Then they got rid of some more noise by having overhead camshaft operation of the valves, with the shafts driven by toothed belts. What noise was left was largely blanketed by the layer of cooling air flowing between the cylinder fins and the shrouding. It is a pity about this shrouding for it always spoils what could be a handsome sight beneath the bonnet, and instead of lots of beautiful and generally shapely metal, you see is an expanse of dull-looking air ducts. In the case of the GS the expanse is not big, for the engine is short and very compact. It is a flat four, so it is very smooth and remains vibrationally undetectable at all speeds up to considerably beyond its placarded maximum. This free-revving ability [it goes to 8,000rpm without any fuss, but is redlined at 6,750] is due in part to the short stroke [only 59mm] which keeps the mean piston velocity at peak revs down to a friction-mitigating 760m/min. The bore is 74mm, making the vital statistics 1,015cc swept volume, 0.8 to one stroke/bore ratio, nine to one compression ratio, and 169.7cm<sup>2</sup> piston area. When these quantities are related to the published performance figures we

find 0.24kW/cm<sup>2</sup> of piston area or 41.4kW DIN at 6,500rpm, equivalent to a peak-power bmep of 689kPa ~ which is not very good by modern standards. At 3,500rpm, when the engine develops its maximum DIN torque of 70.85Nm, the equivalent bmep is 864kPa ~ which is better, but not much. It is perhaps rather revealing that the gross power figures according to SAE standards are so much higher than the net or DIN ones. Peak torque and bmep go up to 73.5Nm and 903kPa respectively, but the really big jump is in maximum power from 41.4kW at 6,500rpm to no less than 50 at 6,750. This is extremely telling because at this rate the peakpower bmep works out at 924kPa. In other words, the bmep and torque [and, by inference, specific consumption] curves are virtually flat from 3,500 to 6,750rpm when the engine is given its head without the burden of all its ancillaries such as fan, alternator and so forth. In SAE testbed conditions the exhaust system may differ from the type on the car, and this probably shares with the cooling fan the responsibility for soaking up that missing 8.6kW, as well as hauling the power peak down by a fairly substantial 250rpm.

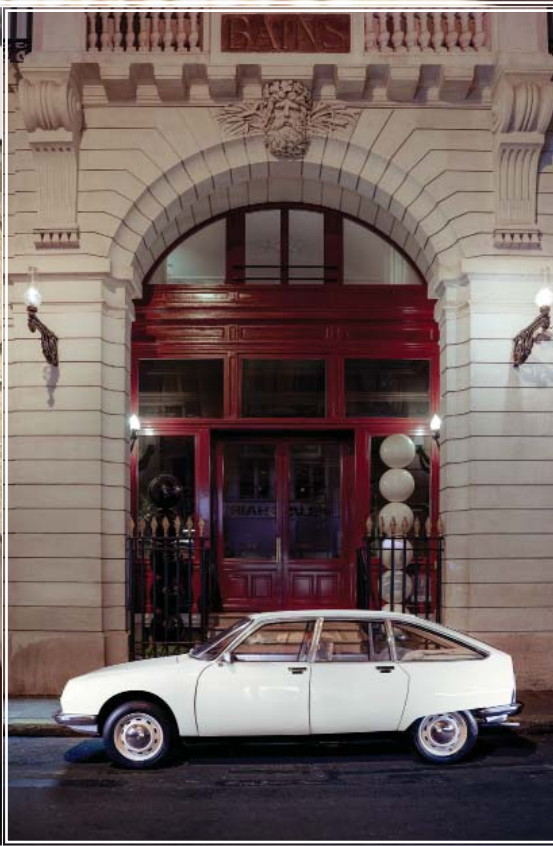
That these figures are significant is confirmed when one drives the car, for one can sense the continued escalation of power all the way up the rev scale, creating the illusion that there is not very much below say 4,500rpm simply because [thanks to the flat bmep curve] the increase in power is

linear with revs, so that in SAE trim there would be nearly 45% more power at 6,500rpm than at 4,500. As installed in the car things inevitably work out a trifle more conventionally, otherwise Citroën would never have arrived at that 37.3kW at 120kph that we had under discussion earlier. Nevertheless the engine certainly feels a lot stronger when its revs are allowed regularly to run up to the limiting rubric on the weird boomerang-shaped tachometer scale. On the other hand, the sudden diminution of torque can be plainly felt if the revs are suffered to rise any further; and remembering that the cheaper GS Confort has no engine-speed instrumentation, it is scarcely surprising that Citroën should arrange for the engine to throttle itself and thus avoid overspeeding.

It is still too early to be final in judgment on this engine. Since the issue of the performance figures just assessed, two significant alterations have been made to the engine and they are likely to affect its behaviour. One is an amended ignition advance curve, the other an alteration in the linkage between the primary and secondary throttles of the carburettor. These are calculated to improve the starting, response and economy of the engine, for some of the pre-production prototypes [upon which the motoring press was loosed some months ago] gave trouble with flat spots and thirstiness. I suspect that half the trouble was caused by young and frankly idiotic drivers who claimed



# Inside the Car of the Year



that they were doing 9,000rpm ~ though how they knew remains a mystery. Perhaps they really did get up to 9,000, for the engines then varied somewhat in their lustiness and appetites. At least the machinery is unlikely to suffer grievous harm from such wayward driving, for it is of singular and durable construction ~ as one would expect if it has to survive 160,000kms. The most notable feature is the combination of a built-up crankshaft with connecting rods whose big-end eyes are solid [that is, they are not split]. This is a most endearing feature, for the continuity of stress distribution around the big-end does a lot to preserve that hard-worked component in health, and one-piece construction does wonders for rod stiffness. All the best racing motorcycle conrods are thus built almost as a matter of course, and they stand abuse such as could never ever be heaped upon the equivalent GS component. They are almost invariably associated with roller bearings, whereas the big-end bearings of the GS are plain. This is a good thing: rollers are fine for main bearings in some cases, but they are really quite unsuitable for big-ends, where the plain hydrodynamic bearing is better in nearly every way. Because of the system whereby the GS crankshaft is assembled, Citroën are able to install thinwall big-end bearings, but they too are undivided and annular, which must make them unique. I must say I like the idea: the nearest I have seen to it is the plain alu-

minium bush sometimes put into a motorcycle big-end eye in place of the standard roller bearing, a device which Mr Surtees used to employ in his youth when riding a Vincent 500. In time, I suppose Citroën might try direct deposition of the bearing metals on the surface of the crankpin or in the eye of the rod.

Given this nicety in the design of the reciprocating bits, something commensurate is called for in the rotating bits. The crankshaft is built up from separate journals and throws, the former being larger in diameter than the holes intended to accommodate them in the latter. This is clever [if not new], for each crankpin is then chilled in liquid nitrogen, whereupon it contracts enough to be inserted in its chosen bore. The assembly is held in a jig while it all recovers to room temperature, by which time the crankpin has expanded again and is a very firm fit. Only a special press can then separate the two components in order to remove the conrod, which would have been slipped over the crankpin before final assembly of the shaft. It is a system that I like very much: I find it preferable to the alternative [employed in the past by Daimler Benz for roller-bearing race engines] of a more conventional solid crankshaft and split bearings and big-ends.

Whatever the engine is and does, and however it may do it, it cannot be considered apart from the transmission upon which it so much depends. That of the GS

**Opposite: At Retromobile this year Citroën presented a special GS with a recent interior designed by Tristan Auer for the Parisian hotel 'Les Bains'. It will be on display for three years at the hotel at 7 rue du Bourg L'Abbé. Denis Huille of Citroën Heritage states: 'The restoration was carried out under the supervision of Citroën Heritage'. Images from Citroën SA.**



# Inside the Car of the Year

is certainly not of any noteworthy merit. The diaphragm clutch is light and sweet, but the synchromesh on all four forward speeds can be obstructive and the quality of the change is further spoilt by excessive movement of the lever across its spring-loaded gate, aggravated by wagging of the whole assembly as the engine and transmission together rock on their flexible bearers. Furthermore the ratios appear to be quite widely spaced: the sequence from bottom to top runs at 3.8, 2.4, 1.5 and 1.12 to one [in more or less round figures] which can be translated into speeds of 43, 71, 109 and 150kph at 6,500rpm. Yet this spacing is seen on closer examination to be nicely judged, for the ratio of first to second is the same as that between second and third, so that when changing up at 6,500rpm, in each case, acceleration is resumed at or just over 4,000, while the narrower gap between third and

**Of course, no matter how 'special' a model may be at the start of its life inevitably some examples will finish their days rusting in piece. This collection of derelict Citroëns was found in the Netherlands by Dick and Bart Veldhuizen. Photo by Sim van Gyseggham. [www.drivetribe.com](http://www.drivetribe.com)**

top involves a drop from 6,500 to 4,850. Thus, for the realisation of maximum performance the engine speed is kept within the gamut bounded by maximum power and maximum torque. The overall gearing is perfect in that the car's maximum speed in neutral conditions corresponds to peak power in top gear. Mechanically the gearbox is not remarkable, being a straightforward all-indirect example with all the synchronisers carried on the secondary shaft because it is lower and continuously bathed in oil. There is a simple spiral bevel final drive to constant-velocity driveshafts incorporating trilobite universal joints at the in-board ends, after the fashion of Autobianchi and Fiat, and Rzeppa ball types at the out-board ends after the manner of Austin and Morris. Also mounted inboard are the front brakes, and fine big brakes they are too ~ but we will come to them later because

they depend to some extent on the suspension system which we must briefly study first of all.

We must do so because it is of the hydropneumatic type, pioneered by Citroën first on the big six-cylinder car back in 1953, and two years later on all four wheels of the then new DS. Basically the idea is that the springing medium is compressed nitrogen of constant mass, while damping and self-levelling are dealt with by an hydraulic system working at high pressure under the stimulus of an engine-driven pump. Thus at front and rear the height correctors maintain a constant level ride height, though a manual override allows the driver to adjust ground clearance for wheel changing, swamp crossing, and other extra-curricular activities. So far so good; but the hydropneumatic system as originally developed for the big DS was not perfect. In the first place it had no roll stiffness, and in the second place it could leave all the occupants of the car absolutely bone-jarred and paralysed if the car landed heavily after taking a humpback at speed, or went into a deep pot-hole. Considerable revision of the damping arrangements [first tried tentatively in the fuel-injection version of the DS21 that was a late addition to the range] have now been completed so successfully that all the humpback problems have been cured and cornering has been vastly improved. Of these things I have been able to satisfy myself quite thoroughly, first in thrashing a GS around the Bloody Foreland

and other equally sinuous parts of County Donegal, and later in another galumphing all around southern England and the Midlands. Each car, by the way, yielded exactly 11.3L/100km overall.

Of all the car's cornering characteristics, the absence of apparent roll is most remarkable. The suspension is quite impeccable, incorporating anti-dive and anti-squat geometry so that the car stays on an even keel when braking and accelerating and this contributes to consistency of behaviour during cornering regardless of whether the power be on or off. The elimination of the once familiar lift-off oversteer characteristic of front-wheel-drive cars has been achieved by a combination of factors including tyre and suspension interaction and a happy choice of steering geometry in which, as in the big SM, the kingpins are vertical in the plane of the wheel with no camber; castor; kingpin inclination or other spurious side effects to interfere with the consistent near-ideal behaviour of the wheels and tyres. The tyres are, of course, by Michelin: ZX radials which look unfashionably narrow in their 145mm section, but they go on big 15in wheels with 4.5in rims, and this probably helps the roadholding a little, the steering and ride quite a lot. Really the handling is outstanding and only when you start getting very enterprising indeed does the car cease to go precisely where you put it. You may then use the brakes to modify its cornering line, helping the tail round





## Inside the Car of the Year

and shedding a little speed at the same time ~ a useful trick in a corner that turns out to be tighter than you forecast. It cannot be too strongly emphasised that the roadholding and handling of this little family saloon, together with its exceptional ride quality, take it right out of its apparent class and entitle it to rank among cars of much grander pretensions. It is an exceptional achievement in being by absolute standards superior to what we have already come to admire in the big Citroëns ~ the improvement in roll damping being the most vivid example of the important differences. To put all this into a car of such modest pretensions and price might once have been considered dangerous, but the stage has been reached today where hydraulics may be considered more reliable than their mechanical equivalents. For example the GS has a new type of high-pressure pump driven by the engine: quiet in operation, it has a constant high-pressure lubrication device and a non-return valve whose life is claimed to be almost limitless. The design life of the pump exceeds that of the engine [remember the 160,000km overhaul life of that?] and the rest of the circuitry is of equal quality, having been designed for mass-production repeatability rather than being adapted from equipment that had hitherto been employed in small quantities. Indeed this is perhaps the other great achievement of Citroën which the appointment of the GS as Car of the Year celebrates: to succeed

in mass producing, to appropriate standards of cheapness and reliability, a system so refined and complex as hitherto to have been the preserve of a privileged minority of costly low-volume-production cars is a great triumph.

And, of course, the high-pressure fluid system is available for serving the brakes system. This being so, it were folly not to use it, for no better exists. Nothing compares with it for power or for controllability. Ask any aircraft engineer. It is a safe system, too, otherwise aircraft would not use it and although what you get in a Citroën cannot really compare with aircraft practice in complexity or cost, you still do pretty well. There need be no fears of running out of fluid pressure to work the brakes, not with the reserves of pressurised fluid stored in the main accumulator and in the rear suspension spheres. In an emergency, all of this is made available under a sort of priority option scheme which must satisfy the requirements of the brakes before all else. What is more, the high-pressure system allows the use of that delightful immobile pressure-responsive pedal such as has always been a feature of the DS. I lament its appearance in the GS as an ordinary pedal lever instead of that lovely little button mushroom, but the constraints which enforced it are understandable.

While speaking of the brakes, let us note a further advantage of the pressure-hydraulic system. It is the most suitable for adapting to the automatic variation of brak-

ing effort according to the load to which every several wheel is subject. Here the hydraulics of the self-levelling suspension come into action as load-sensing monitors to govern the braking circuitry, so that each brake is given as much work as it can handle and within limits, no more. It works, as I was again and again able to verify on the road. So does the steering geometry, remaining unaffected by the brakes: only in extremis will the GS allow these two control modes to interact. The resultant stability is accountable not only in terms of sensitivity of brake operation but also by reference to that neutral steering geometry which encourages the car to go where it is pointed, regardless of whether or not one or other front brake happens to be locking. I fancy that the unseen subtleties of the GS specification will in time

save a great many travellers from perils that they will not be aware of having negotiated, perils from which few if any other cars [the Jensen FF springs to mind as an exception, but that too was the Car of its year] could preserve them. Safety engineering and systems engineering of high probity and low price, together with a reaffirmation of the value of aerodynamic study, are what distinguish the Citroën GS. It has other virtues of a commoner kind, but these special ones are what have made it a compulsive choice and a compelling success.

LJK Setright

Setright's last book, 'Drive On! A Social History of the Motorcar' is in the Club's library. If you want to borrow it [and it comes highly recommended] contact our Librarian, Max Lewis.

## Looking Forward



*Next issue...  
World-wide the 2CV is recognised  
as the car that put France on the  
road. But is the Méhari seen as the  
car that put them on the beach?  
Find out next time in 'Front Drive'.*

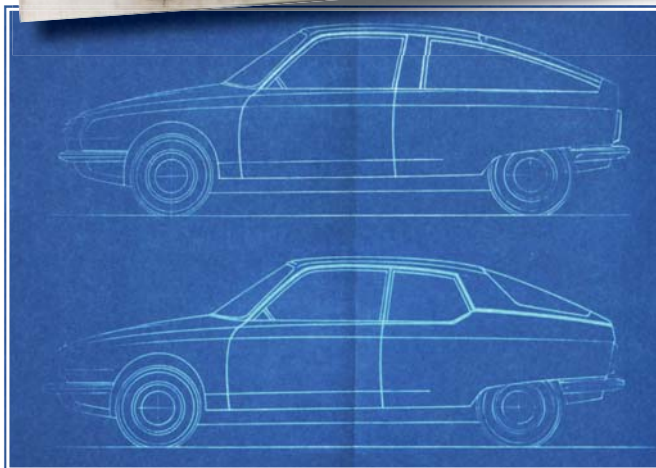


# The French Camargue

## Still Born: The GS Coupé

Even before the introduction of the GS, Citroën had been playing with the idea of making a coupé version. Since the car already looked somewhat like a coupé, it would need little adaption. However much the designers dreamed about a coupé, it always stayed at the sketches and scale models stage, as can be

Sketches for possible a GS coupé were done as early as 1968 by Jean Giret [top and bottom] and Michel Harmand [centre].



seen here.

Having said that Citroën was working on a coupé even before the GS was fully defined. The sketch below, by Jean Giret was done in 1968, and shows a very recognisable car. The second sketch shows the work of Michael Harmand, with his 'trademark' front wheels rotated to full lock. In January Jean Girst had another go and made these two side-view sketches for a possible gs coupé. The second draws heavily on the lines of the sm, while the upper one would have been easier to realise.

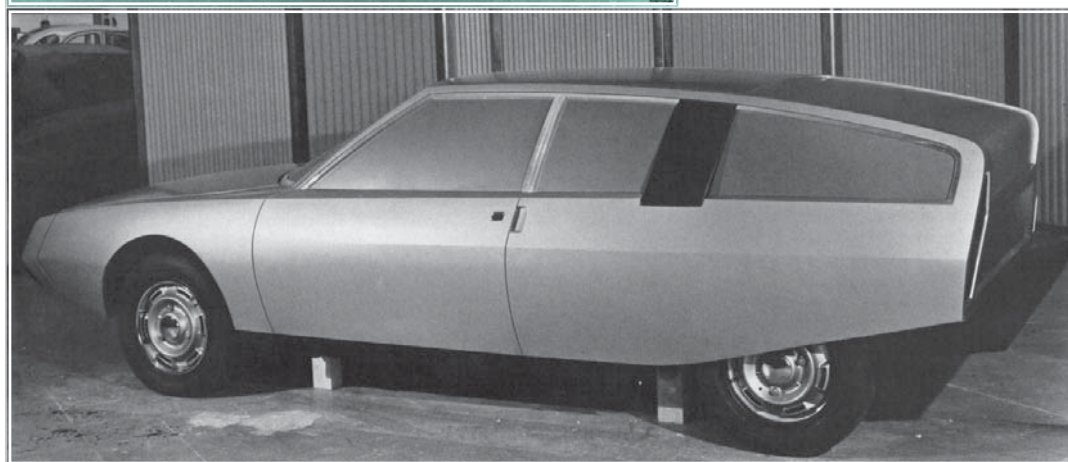
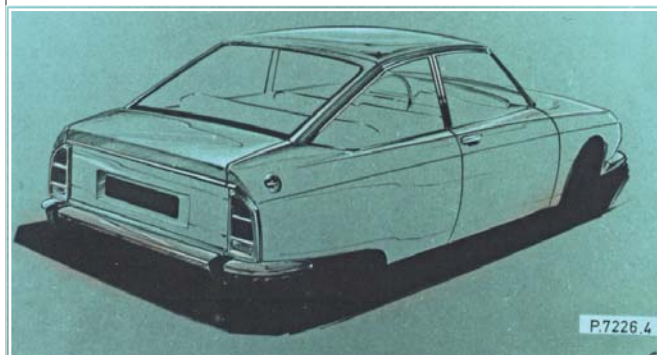
The only well-known coach-builder who worked with the GS was Bertone. His GS Camargue was ~ and still is ~ very beautiful. At the time Bertone worked for Citroën subsidiary Maserati and as a result had contacts in Paris. He hoped to further strengthen his design studio by coming up with a concept car based on a Citroën. The Camargue had its premiere at the 1972 Geneva Salon and is still seen regularly at shows and events.

The big disadvantage of this truly unique car was that nobody recognised its GS origins. Although the model did use the standard GS interior, albeit with more luxurious seating. Incidentally, it was Bertone's chief designer, Marcello Gandini, who designed the Camargue and not Bertone himself. Gandini would later pen the lines for the BX for

Citroën.

But Citroën's level of interest in a GS coupé changed in 1972 when Citroën took a share in the factories of Ligier. The intention was that from now on the sm would be built there. Guy Ligier did not find the SM profitable enough, so he went looking for a second model that he could produce as well in his brand new assembly hall. It must be a car with a sporty touch. Robert Opron remembers that Ligier said to him: 'Opron, faites-moi un projet!' [Opron, make me a project!]

The rear of this drawing calls on cues from the M35. In the design for Ligier, elements from the previous coupé studies were revisited. Only one model was worked out in full size, but without running gear. This car could roll, but not be driven.



To do Ligier a favour, Opron and Jean Giret started work. Giret worked very closely with Opron on both the GS and SM and would subsequently replace him as head of the Bureau d'études. In February 1974 they came up a GS coupé which was a clever combination of elements from previous attempts. For example, the retracting headlamps suggested by interior design specialist Robert Harmand were used and the profile of the car is easily recognisable from earlier proposals. The protruding grille might have seemed new, but was actually already provided for in the Birotor. Later this style element, which in both Dutch and English is not very stylishly known as 'pig nose' would be used in the Visa, albeit briefly. [As a Visa owner, I prefer the Australian nomenclature 'wombat nose. Ed.]

Although the proposal was ab-



# The French Camargue

olutely viable, it could not have come at a worse time. Citroën was heading for bankruptcy and Peugeot was waiting in the wings to take over the overall control of the company. When the time came, Peugeot immediately pulled the plug on the unprofitable SM. The GS coupé was not going to happen anyway, perhaps partly because Opron left for Renault. Ligier's plans fell apart. In order to make his new factory profitable, he asked Frua to draw a design for an alternative body for the SM, which could possibly be sold as a Ligier. But Frua's design literally made Ligier burst into tears. In the absence of any cars to build, Ligier went bankrupt.

After this last, unsuccessful attempt, Citroën stopped talking about a GS coupé. Due to lack of money and the takeover by Peugeot, all plans went into the proverbial trash bin. No real coupé would be built until model year 2005 when Citroën

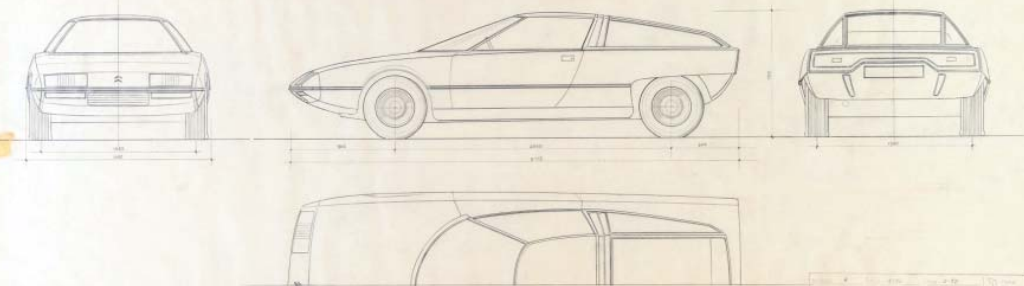
released a coupé version of the C4. And Ligier? With borrowed money he made a new start and got back on his feet. The company still exists today and is now known, among other things, for making microcars, some of which were designed by... Opron.

## GS Birotor Coupé

Several stories have circulated about the two different 1:5 scale GS coupé models that Marc Deschamps [later responsible for the XM, see the next edition of Front Drive] designed at Ligier in 1973. Obviously, the intention was to develop only one car, hence the use of the singular in the text below.

It was suggested that the coupé would be an addition to the existing range and would, because of its sporty lines, attract a younger clientele. There was no mention in this case of what engine might be fitted. However, it was claimed that the mod-

**This design blueprint for the Camargue is from the Bertone studio and is from the website of auto&design magazine.**



[www.autodesigndesignmagazine.com/en/2020/08/citroen-gs-camargue-bertones-dream-car/](http://www.autodesigndesignmagazine.com/en/2020/08/citroen-gs-camargue-bertones-dream-car/)

el would be built at Heuliez. In a second version the model was referred to as 'GS Birotor coupé', which suggests the use of the Wankel rotary engine. This might have been a good model for Ligier to produce, especially since, with the demise of the SM and no other model to produce, this left them with spare capacity. A third story largely resembled the

previous one, but with the difference that rather than the Wankel engine, a V4 Maserati engine would be fitted.

With the knowledge we now have, option one seems the least plausible, especially since Deschamps is not known to have worked at Heuliez, and in any case, certainly not at that time. Versions two and three undoubtedly

come closest to the truth. Unfortunately, this project was cancelled and nobody ever got to see a full-sized version of Deschamps' coupé. All that remained were the two scale models.

It must of





## The French Camargue

course cause one to speculate whether Citroën could have sold more GS Birotors had it been clothed in a better differentiated suit of clothes than what appears to be merely a slightly modified standard GS body. Of course, as NSU discovered to their regret, selling more rotary-engined cars did not lead to a better outcome for the business. Ed.

### When is a Coupé is not a Coupé?

When it is a three-door, rather than a coupé.

The coachbuilder Heuliez started work on a three-door GS on his own initiative in 1970. The first scale model was in 1:12 scale made by converting a Jouets Mont-Blanc toy car.

The idea must have met with approval as the next we hear is of a full-sized prototype. The front seats were fitted with a tilting mechanism and the front doors were lengthened to facilitate entry. As this made the rear side windows appear small the C-pillar was moved backwards and the third side window was replaced by a grille, reminiscent of that used subsequently on the Renault 17.

The other novelty of the prototype was the inclusion of a bootlid hinged from the roof. As Citroën discovered with the GSA in order to maintain the body's rigidity the panel between the rear lights had to be fixed, creating quite a high lip. That on the GSA is lower than on the prototype, but still not as convenient as that found on the GS.

© This is a modified extract from 'Citroën GS & GSA ~ Citroën's avant-garde mid-range cars', by Marc Stabél with Julian Marsh. The illustrations have been sourced from Citroën SA. This book is now available to borrow from the Club's library.



P.7228.7

## GSA: Changed but Recognisable

As I noted earlier in this edition any car that achieves high praise at its launch can be expected to have had the shine taken off it 16 years later. Surely the GS/A is no different? Mark Ebery noted that at its launch the response of the journalists was not unanimous praise. Although it was only the Dutch who went so far as to suggest that the GS was simply 'no good'.

In addition to the What Car? 1975 review of the 1,015 G Special, the Editor also has a 1973 review of the 1,220 GS Pallas and a 1980 review of the 1,299cc GSA also in Pallas trim. Both these are from Motor magazine.

Early UK GSAs are easily identified as they continued to use the 'old' GS dashboard rather than the 'new' GSA facia.

As a further aside, at least one

of these early UK cars did make it to Australia. Long-time CCOCA member Peter Fitzgerald was at one stage the owner of a pale blue example. It replaced his Renault 16 which in turn had substituted for his GS Pallas. I believe the GSA eventually joined the collection of George Hamada, but as to its present location... your guess is as good as mine.

### Versatility

The top-line summary said 'The GSA is the newly introduced hatchback version of Citroën's evergreen GS. Versatility is naturally increased, while many of the GS's other virtues and faults remain ~ it is comfortable and smooth, and very economical, but not particularly quick.'

Naturally they praised the arrival of the hatchback. They believed the GS had always been spacious and the addition of the



## GSA: Changed but Recognisable

hatch and folding rear seat added to the versatility. But they thought the process of folding the rear seat was overly complicated. First the rear parcel shelf is removed, the seat cushion released via a lever underneath and folded forward and finally the backrest released via catches hidden in narrow slots on each side of the seat back. As the owner of a GSA, I have to agree. The same-era Visa is far simpler, although the seat base catch is just as inaccessible on the Visa as it is on the GSA.

What also surprised the writers was the inclusion of quite a high lip at the back. Given the GS and GSA Estate's bumper-level opening they were baffled by this retrograde step. Pretty much every other small/medium hatch faced the same issue and it was/is due to the need to maintain the rigidity of the body, once you cut such a large, steeply-angled hole

in it. It is possible with the Estate as the hole is almost vertical.

### Interior

The writers continue to praise the overall interior space of the car. Despite a decade of new cars, the rear seat foot and knee room offered is still 'more than in most rivals'. However the need for the hatch to have hinges near the heads of rear passengers appears to have impacted the headroom. They also commented that the rear seat was not particularly wide. In the 1975 test the only comment on the rear seat was that it '...is adequate for two adults, cramped for three, but leg room is quite generous for a small car ~ certainly adequate for anyone up to 1.8m tall.'

The front seats, however, came in for high praise being 'relatively large, soft and squashy, with plenty of lumbar, thigh and side support.' But it was felt that there was insufficient adjustment to al-

low long-legged drivers and passengers to become comfortable. This is an interesting point, given that of the comparison set of five other cars only two provided more leg room at the greatest extent [the Fiat Strada, offering 8mm extra and the Renault 14 proving 25mm extra].

The testers gave praise for the location of the major controls [lights, indicators, horn, flasher...] but were less impressed by the positioning of the minor controls ['... a row of rather fumbly buttons on the fascia... the choke is down under the steering column... the heater slides scattered over the fascia...']. In 1970 these, you will recall had been singled out for particular praise. As they were in the What Car? test where they commented that the GS had '... a good heating and fresh air ventilation system...'

But, at least in those two cas-

es the 'climate control' levers did not fall off as they did in Motor's previous test of the 1,015 GS and in their 1973 1,220 review.

But in the 1973 article Motor complained bitterly about the heating. They do recognise that there are issues to be overcome with cabin heating in an air-cooled car. 'The problem... is to maintain a stable temperature at varying speeds and engine loads. Citroën... have yet to fully master the problem. The output is modest even when the engine is warm and revving hard; when idling, the output is virtually non-existent.'

By contrast in the GSA test, 'output from the heater is good but takes a while to come through from cold.'

At launch the views about the French dashboard were, to say the least, diverse. The UK dash was altogether more conventional, and was the same as that

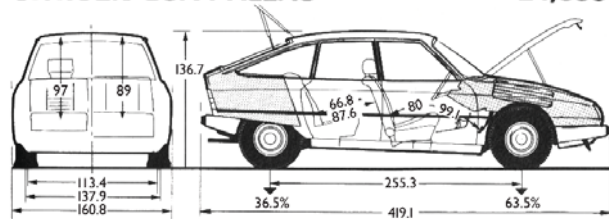




# GSA: Changed but Recognisable

## CITROËN GSA PALLAS

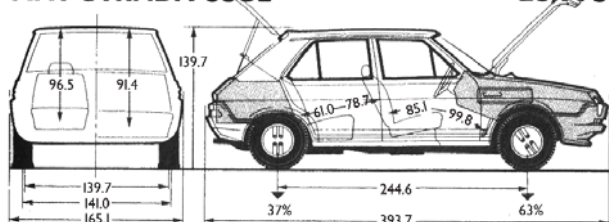
£4,399



The GSA is the hatchback derivative of Citroën's ten-year-old GS. Compared with the four door versions it is longer and has different trim details, such as a front spoiler. The performance is disappointing, but the addition of a fifth gear has helped to make it very economical. Comfort and ride as usual superb, but minor controls are scattered and instruments small and reflective. Well equipped.

## FIAT STRADA 65CL

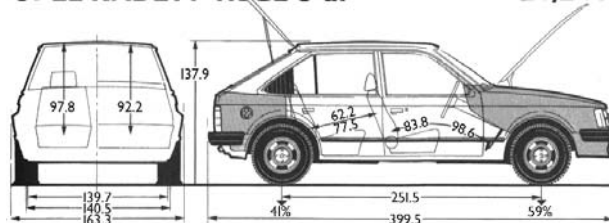
£3,779



The Strada is the first of a new generation of front-wheel-drive hatchback Fiats, the Strada does nothing especially well, or especially badly, having safe, if rather un-sporting, handling, a fairly pliable ride and average performance. Gearchange lacks precision, but CL version gets fifth gear for very relaxed motorway cruising. Fuel economy fair and interior appointments lavish for class. Very well priced.

## OPEL KADETT 1.3GL 5-dr

£4,241



In GL form, with the more powerful 1.3S engine, Opel's new front-wheel-drive Kadett combines excellent performance with outstanding economy in a package with very good accommodation, taut, precise handling and a delightfully quick and precise gearchange. Ride comfort, however, is only average for this class and mechanical refinement needs to be better. But overall the Kadett is an excellent car and a worthy rival for the Golf.

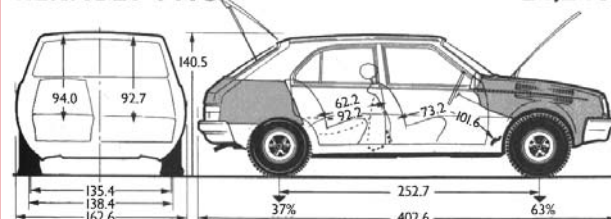
used in the Birotor. What Car? said 'with neat white lettering on a black background the instruments are very legible, only the ammeter being masked by the steering wheel rim.'

Motor [1973], while being elated that the car on test did not have the French dash, bemoaned

the 'annoying reflections at night from the trim beneath [the dials].' In their GSA review, with the 'old' GS dashboard, they believed the instruments were not 'particularly pleasant... [being] small, reflective and rather hidden by the cowlings over them'. They were clearly looking forward to the

## RENAULT 14TS

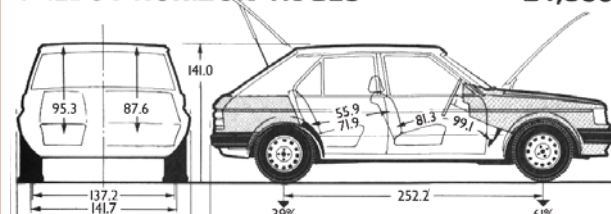
£4,246



Top model in Renault's 14 range. Bigger [1,360cc] engine gives better performance, notably at the top end without too much sacrifice in fuel consumption. As in other Renaults, comfort via a resilient ride and soft seats comes before handling, which is soggy but safe. Eager engine and good wind noise suppression are good features as are interior space and versatility. Very well equipped.

## TALBOT HORIZON 1.3GLS

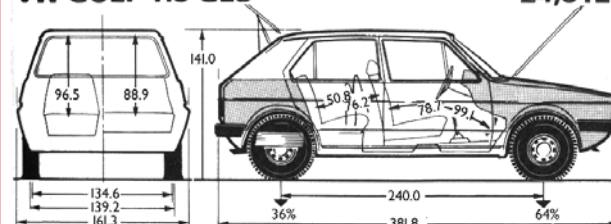
£4,350



The Horizon is Talbot's contender in the Kadett/Golf market is expensive in GLS form but plushly trimmed and extremely well equipped. 1300 engine gives impressive blend of performance and economy; refined cruising marred by booms at some speeds. Smooth but rather noisy ride, and surefooted handling that is spoiled by very low-geared [although commendably light] steering. Not as roomy as might be expected, and driving position is cramped.

## VW GOLF 1.3 GLS

£4,312



For 1980 the GLS [and LS] Golf has a smaller, 1300 engine, which is noisier than the previous 1500, but performance is only slightly reduced, and competitive in its class: fuel economy fair. Not as roomy as some of its rivals but still a comfortable car with a supple ride and good heating and ventilation; and a driver's car with eager engine, balanced handling, delightful gearchange, good control layout. Not as lavishly equipped as some similarly priced rivals.

introduction of the new French GSA dash while saying that 'the new facia shown at the Frankfurt Motor Show last September, incorporating Visa-style 'satellite' switch-gear, will not be fitted to right-hand drive versions in the foreseeable future.'

## Engine & Performance

Early reviews had been critical of starting issues and lengthy warm-up times for the GS. In 1970 the 1,015cc motor was liked for its quietness [rare in an air-cooled engine] but the acceleration

## GSA: Changed but Recognisable

times did receive criticism.

In 1975 What Car? complained that the 1,015 motor 'proved to be a very poor starter, requiring several attempts before it burst into life, after which it needed a lot of choke for three to five km before it would run at all smoothly and idle properly.'

Motor had no such issues starting the 1,220 car from cold but 'it was infuriatingly reluctant to pull without stalling, no matter how much you played with the choke.' Eventually, they settled for a lengthy warm-up period before driving off.

Similarly, the GSA started easily but the warm-up was temperamental, the choke needing to be finessed to achieve smooth running.

Fuel consumption of the cars, all types, came in for criticism.

One of the reasons given for

the GS's small original engine was to endow it with good fuel consumption. But it did not work out that way in practice. Remember, l'Automobile had 'achieved' a figure of 13.4L/100km in hard driving. Hardly 'good'. Motor [1973] quoted consumption on test for the 1,015 of 11.0L/100km while the 1,220 gave them 10.5L/100km.

As an aside, Citroën faced the same problem with the Visa Club [652cc] and the Super E [1,124cc] where the official 'Constant 90kph' consumption of the smaller engine was exactly the same as the larger. Of course, the purchase price was lower.

At steady speeds Motor found that the fuel consumption of the bigger engined GS was always better than the smaller ~ by almost 3L/100km at 110kph.

And the even larger-engined GSA? The overall figure was bet-



	G SPECIAL 1,015cc [What Car? 1975]	GS PALLAS 1,220cc [MOTOR, 1973]	GSA PALLAS 1,299cc [Motor, 1980]
<b>PERFORMANCE</b>			
Speed in Gears			
Maximum Speed	145kph	148kph	153kph
Max in 3rd	108kph	113kph	119kph
Max in 2nd	72kph	72kph	79kph
Max in 1st	45kph	45kph	47kph
Acceleration			
0-48	5.4sec	4.5sec	4.5sec
0-64	8.8sec	7.0sec	6.9sec
0-80	13.2sec	10.7sec	10.1sec
0-96	18.4sec	15.0sec	14.6sec
0-113	23.6sec	22.3sec	19.9sec
Standing 400m	21.2sec	19.8sec	19.8sec
Terminal speed	105kph	109kph	113kph
Top gear			
48-80	13.8sec	11.4sec	11.4/16.0sec [4/5sp]
64-96	14.4sec	12.0sec	11.6/17.2sec [4/5sp]
<b>FUEL CONSUMPTION</b>			
Full test	10.3L/100km	10.5L/100km	9.0L/100km
Touring	9.5L/100km	7.9L/100km	7.7L/100km
<b>ENGINE</b>			
Maximum power	40.3kW @ 6,750rpm	44.8kW @ 6,750rpm	48.5kW @ 6,750rpm
Maximum torque	70.7nM @ 3,500rpm	87.5nM @ 3,250rpm	98.0nM @ 3,500rpm
<b>TRANSMISSION</b>			
Clutch	17.9cm diaphragm spring	18.4cm diaphragm spring	18.4cm diaphragm spring
Gearbox	4-speed, all-synchromesh	4-speed, all-synchromesh	5-speed, all-synchromesh
Ratios	3.82, 2.38, 1.52, 1.12 to 1	3.82, 2.38, 1.52, 1.12 to 1	3.82, 2.29, 1.50, 1.13, 0.91 to 1
Final drive	4.12 to 1	4.12 to 1	4.125 to 1
kph/1,000rpm in top	23.0	24.6	24.3/30.1 [4/5sp]
Weight	853kg	874kg	970kg

ter than the 1,220 GS by a further 1.5L/100km.

Of course the performance of the larger engined vehicles was always better than the smaller engined cars. This despite the

weight increases that came with the larger capacity and improved trim and specifications. The table shows it all.

Leigh F Miles, Editor



## You Sed

The letter of 9 October 2020 from the CCOCA President and Treasurer informed members of a Committee decision to reduce annual membership fees from \$55 to \$35 pa. for those opting to receive Front Drive magazine electronically. Those members who wished to continue to receive a printed and posted copy of the magazine would pay an extra \$45 pa., a total of \$80 pa.

Based on estimates kindly supplied by the Treasurer, reduction of \$11500 of fee income by about \$7500 and abolition of printing and

postage costs would result in additional income to the club of approximately \$5600 pa. after offsetting \$4200 in reduced fee income. On top of this, the club intends to recover approximately \$1000 pa. from those members who choose the print option. (The figure of 28 opting for print includes some Life Members, who deservedly pay nothing.)

Those who read the Treasurer's report published in FD vol. 44 no.2 will be aware that CCOCA is holding a cash reserve of \$65,800, for which no plans for future expenditure yet

exist! The Committee is intending to work on a plan.

As a member of CCOCA for 42 years, I find the Committee's decision, taken without a thorough consultation with members as MEAN. My offer to pay \$45 pa on a "Magazine only" basis, as some other clubs offer, has not been looked upon with favour. Alternatively, I believe that it would be reasonable for the "full cost recovery" of \$45 per member to be suspended until the Committee actually developed an overall plan. What do you think?

Peter Simmenauer

## 6 Cars, 6 Days: Part 3

We left Geoffrey, at the end of Part 2 of his '6 Cars in 6 Days', heading north from Murwillumbah after driving Damian's GS.

*Day Five: Friday, 21 February  
Vehicle Five: Citroën SM.*

The time was 2pm, I was to have just enough time to test drive probably the most iconic Citroën, Warren Coyle's beautiful, majestic, big LHD SM. This was the car with that 3litre 6-cylinder Maserati motor. I had an idea where I was heading, the GPS taking me off the main highway and into the Eucalypt forest, deep into the Currumbin Valley. Got there, as I soon recognised two immaculate Citroëns in his open garage, so impressive, his DS 23 bonnet up and beside was that long low slung SM.

Warren generously contributed to our first book, Citroën DS and that's how I knew he had this SM that I was about to experience and drive for the first time.

Greeting Warren, he sure seemed pleased to see me arrive. He introduced me to his lovely wife Mandy, we had a cuppa over a quick chat, the Key Lime Pie was pretty delicious, thanks Mandy. [have already put in a request for another pie sometime] Then a tour around their beautiful family home, a classic architect's house of the late 1970s and previously owned by an architect too. Warren proudly pointed out

where they had extended the house, made their own improvements and typically he said, it was still a work in progress. He had at that moment, roofing contractors replacing old corrugated iron on his office nearby.

Time was getting on, Warren had his appointment in an hour, so he started up the SM, reversing carefully out of the garage. Immediately that motor, that sound, you sensed this motor was different, not just an ordinary Citroën, this one. Stepping out from the left hand driver side, Warren said, 'Ever driven an SM before?' Cautiously, I said, 'No, but I have driven LHD cars in Europe and the States some years back. 'Take the wheel', he said, 'I'll run you through the instruments. It's a 5-speed manual, there's the button brake, just like the DS and the same indicators, not self cancelling'.

I sure felt comfortable in the Tabac leather upholstery, the seats were luxurious in typical old Citroën style and the radio was there beside me in the Console.

Well, with my right hand on the gear stick, I was impressed to drive this Citroën, although Warren had to operate the windscreen wipers occasionally, and I did drift towards the centre line too, I was really concentrating, taking it all in. Warren directed me. 'Look further ahead, not down in front, that way, you'll

## 6 Cars, 6 Days: Part 3

keep left'. Of course, the SM was a big car and a little wider than our DSs. We were at the end of Curumbin Creek Road to the Cougal National Park, the winding bitumen road had some traffic, was wet and narrow in places but I did manage to get it to 5,500rpm, felt that surge, that throbbing Maserati V6 under that long bonnet out in front. So grateful that Warren entrusted me to drive this car [knew he was short of time], I gladly pulled over... Then back in the driver's seat, Warren really demonstrated its prowess, its handling and power, he knew the road too.

Heading back, he told me some of its background, and how he acquired the car. 'I bought the SM ten years ago from a gentleman in Nashville, Tennessee in late 2010, sight unseen, took a risk I know, but it turned out to be in pretty good condition. Peter McLeod and DS Motors did some maintenance work for me'.

**Having relieved Geoffrey of the unique stresses of driving a left-hand drive SM on Queensland's roads, Warren Coyle took the wheel. Warren's SM, next to his DS.**

[Yes, Warren's SM retrieval story during the Queensland floods will make a good one for the book.]

Back on the M1 Gold Coast Motorway, I headed back to Brisbane, it was 4pm Friday afternoon, slow, stop, slow, stop..., all 4 lanes, commuters everywhere, everyone heading home from work! Eventually, I arrived my next venue overnight stay in Northgate. Picked up my own special takeaway Pizza from Ginos in Hamilton.

Some of you may remember Ginos, the Italian restaurant, I started dining there some 45 years ago and today, still there, their pizzas still good.

Pity not the same attractive waitresses, only some ten years ago, the previous owner, Dominique, she was pretty good, had beautiful round eyes, and a brilliant memory too, took all our orders in her head and then the next table too! I always remem-

ber that.

*Day Six: Saturday, 22 February  
Vehicle Five: Citroën CX.*

Next day, the last day, Saturday 22 February, drove my sixth car for the trip.

It was to be a CX. I had already driven one some 20 years ago when we had the 505 of the same vintage. This one was the CX Break, a big wagon. Ken Wilson generously let me drive it. It was a very early model, it was only a 2litre and 4-speed manual. Ken took it out first, 'It's like driving a land barge', he said with a chuckle. And I quickly gathered that as he turned the wheel left and right, the car wallowing along, its very soft suspension making it sway from side to side, quite eerie really. However, when I took the wheel, the gear changes were easy, managed the clutch well and the motor was quite responsive.

'She drives well for an old girl'. Ken said, 'the car was trucked in from Alice Springs. The owner

could not start it. Steeley got it going pretty quickly but did not want to do any further work on it, so he said to me, you buy it Ken, so I did. Needs some attention, the paint work's not good but it goes and it's quite useful, has enormous interior space'. Ken concluded as I thanked him for his time, his generosity and wonderful insight into Citroën ownership.

Back home that afternoon after travelling 1,065kms and I knew I had plenty of notes to write up. I think I have lots of material for this next book. And I'm already thinking of the next trip.

That was until the COVID-19 Restrictions suddenly put a big stop to all that. So as I prepare this Part Three for your next magazine, restrictions are improving and hopefully, I'll be back on the road perhaps to Cowra in September, 2020 to drive a few more Citroëns.

Geoffrey Webber 0411 652 555

**Ken Wilson's CX may not be the most perfect example of a CX Break, and it may have driven with all the aplomb of a 'land barge', but Geoffrey appreciated the experience.**





## An Accidental Centenary

Citroën marketing has previously suggested that the beginning of the marque's history in Australia began in 1923 ~ for example, the Citroën C4 85th Anniversary Edition was marketed in Australia in 2008<sup>1</sup> or the 75th Anniversary Xantia in 1998. However, initial research for our book on the history of Citroën in Australia [co-authored with Geoffrey Webber], places the marque's presence in Australia a few years earlier ~ indeed, it closely follows the birth of the first Citroën car itself.

Herbert Curtis, Managing Director of Preston Motors in Melbourne, had embarked on a seven-month voyage that included attending the Paris, London, New York and Chicago motor shows.<sup>2</sup> Having spent five days at the Paris Salon d'Automobile in October 1919, the show was so busy that Curtis was unable to conduct any business.<sup>3</sup> However, leg-

**One of 75 Limited Edition models produced to celebrate what was purported to be the 75th Anniversary of Citroën cars in Australia. It was a brilliant family car with about \$5,000 worth of extras, including fog lights, colour co-ordinated bumpers, sun roof and steering-wheel mounted radio controls.**

end has it that, in order to escape the heavy crowds intent on viewing the first Citroën car, Curtis had withdrawn to the men's toilet to conclude an agreement [indeed, on the edge of a washbasin] for the Citroën franchise.<sup>4</sup> Curtis also took the opportunity to take an extensive tour of the Citroën factories whilst in France, noting how the cars were made entirely in-house ~ including steel castings and dynamos ~ as well as the output [40 cars per day in December 1919] and the measures the company had taken for the welfare of its workers.<sup>5</sup>

Curiously, it was Co-Operative Motors Limited in Hobart, Tasmania, that placed the first advertisements for Citroën in Australia in December 1919, claiming 'shipments arriving shortly'.<sup>6</sup> Accordingly, one presently unresolved aspect of our research is determining how it came to be that Co-Operative Motors began advertising for Citroën at such an

early stage, pipping both Preston Motors own Citroën advertising which commenced in January 1920 and Curtis' return to Melbourne [in around March 1920].<sup>7</sup>

There is some ambiguity about when exactly the first Citroëns reached Australia ~ possibly from as early as late September 1920 to late December 1920. Preston Motors had a display as part of the Grand Exhibition of the Royal Agricultural Society at Flemington, held between 20-25 September 1920.<sup>8</sup> Citroën signage is prominently displayed in the photographs but it is unclear whether Citroën cars were actually shown or whether Preston Motors was merely marketing them at this stage. In late October 1920, Co-Operative Motors in Hobart was expecting a shipment of Citroëns to land 'shortly'.<sup>9</sup> In early November 1920, a Geelong Citroën agent, Australian-Aero Garage, advertised deliveries of Citroëns 'during

November'<sup>10</sup> and, by late November 1920, a shipment of Citroëns had arrived for sale by Moncrieff Engineering Co Limited in Adelaide.<sup>11</sup> In late December 1920, Preston Motors began advertising that 'regular shipments of these now famous cars are now arriving and immediate delivery can be given'.<sup>12</sup>

Accordingly, there is a Citroën centenary upon us right here in Australia. We can only wonder what other fascinating insights will be uncovered about the marque's history in Australia as our research progresses. Mark Provera.

Your Editor has done a little more research. In April 1922, just one year after securing the Bianchi agency, it was announced that the Maughan-Thiem company had obtained the agency for the French Citroën car which was previously handled in South Australia by the Moncrieff Engineering Co Ltd. The Citroën had

**Peter Olerhead's 1920 Citroën Type A, a typical example of the first model that came to Australia. Co-author Geoffrey Webber in the driver's seat at Motorclassica.**



Co-operative Motors, Hobart in 1923, with a row of Dodge cars lined-up. Today, they sell Toyota and lay claim to being the longest serving motor dealer in Australia having been founded in 1913.





## An Accidental Centenary

already made a name for itself before coming to South Australia, and for some seven years Maughan-Thiem flourished in its dealership for this popular make of car. Indeed a Citroën Car Club was formed, and on Sunday, 16 September 1923 what the press called 'rather a unique event in the motoring world' took place. A fleet of 40 Citroëns left the Maughan-Thiem premises for Belair, where prizes were offered in an interesting range of events. These included the first car to arrive at Belair; the most attractive car; the best-kept car; the dirtiest car; the car which had travelled most miles; a skilful driving event for ladies; and an event in which mechanical troubles had to be righted. There was also the usual round of picnic events such as threading the needle, a flag race, and an obstacle race. This was the beginning of a number of such outings which served to emphasise the popularity of the Citroën. The two most favoured models were



**Maughan-Thiem on Pulteney St, Adelaide with a collection of Citroëns in 1923.**

**Peter Olerhead's Type A on display at the Preston Motors Centenary Celebrations in 2012.**

the larger car, originally a 10hp car which was increased to 11.4hp in about 1926, and the Baby Citroën which was originally a 5hp model and became 7.5hp later on. The Maughan-Thiem company found the Baby Citroën a particularly popular car. It has been described by one who knew it as a sort of cousin to the Volkswagen, a rugged little car about the same size as the later German car with disc wheels. In the 1920s a Baby Citroën was driven all around Australia by a team of trial drivers which included Bill Forrest of Maughan-Thiem, no mean feat for a small car in those days. The Citroën brand remained on Maughan-Thiem's books until 1929 and for some years was an important agency for the company. In September 1929 the South Australian agency was taken over by Crawford-Richards

Ltd of Currie Street.

Footnotes

- 1 For example, see announcement of Citroën C4 85th Anniversary edition, *Wheels*, August 2008.
- 2 'Four Shows Witnessed', *The Herald*, Melbourne, 15 March 1920, p.3.
- 3 Ibid.
- 4 Hunter, M [2012], *Preston Motors 100: a celebration of life and achievement*, Preston Motors, Campbellfield, Victoria, p.12.
- 5 'Four Shows Witnessed', *The Herald*, Melbourne, 15 March 1920, p.3.
- 6 *The Mercury*, Hobart, 6 December 1919, p.4.
- 7 *The Herald*, Melbourne, 26 January 1920, p.4; *The Herald*, Melbourne, 2 February 1920, p.2; *The Herald*, Melbourne, 9 February 1920, p.3; *The Herald*, Melbourne, 8 March 1920, p.5.
- 8 'The Forty-Ninth Grand Annual Exhibition of The Royal Agricultural Society of Victoria, held at the show-grounds, Flemington, last week', *The Australasian*, Melbourne, 2 October 1920, p.10. For Exhibition dates, see Royal Agricultural Society of Victoria [1921], Report of Proceedings for the



**Preston Motors in the early days.**

**A display of advertising material at the Preston Motors Centennial. Citroën is third from the right.**

year 1920 with index, H Hearne & Co, Melbourne, p.4.

- 9 'The Cooperative Motors Limited. Austin and Dodge Sales', *The Mercury*, Hobart, 21 October 1920, p.10.
- 10 *Geelong Advertiser*, Geelong, 4 November 1920, p.6.
- 11 'A light-weight car ~ the French Citroën', *The Mail*, Adelaide, 20 November 1920, p.16.
- 12 *The Argus*, Melbourne, 22 December 1920, p.2; *The Age*, Melbourne, 22 December 1920, p.3.





## Madmen & Advertising

Advertising and Marketing are interesting fields. Well, they are for your Editor who spent almost all of his working life in the field. Marketing has been described by some as the 'art' of persuading people to buy things they don't need, with money they don't have, to impress people they don't like. And those with that jaundiced view could well be right.

But the other thing about advertising is that over time it can move from being influential to laughable. We move on, and the appeal of the in-car portable record player has diminished considerably since the launch of the first example by Chrysler in 1956. This unit, carefully designed, and placed, to knock into the passenger's knees, was on the options list for most Chrysler brands. It used specially designed records:

7" in diameter and revolving at  $16\frac{2}{3}$ rpm, each side played for about 60 minutes. The unit came with six records and more could be ordered through your friendly Chrysler dealer. Its price, \$200 [about \$2,000 in today's money] may well have been an impediment to purchase that no amount of marketing, or advertising, could surmount.

The other thing that can happen to the much-maligned advertiser is that social standards and mores change with time. Once, in the days when buying a car was seen as the preserve and domain of 'the man of the house', something the 'little woman' would be best to avoid, advertising for cars, and indeed the stands at motor shows, were filled with scantily-clad beauties disporting themselves over Henry Ford's latest sheet metal.

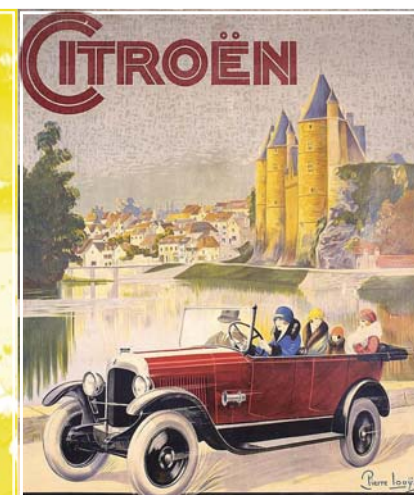
As Mark Walton wrote in 'Car'

in 2017, 'I wish I'd gone to the Geneva motor show back in 1972. In my mind, I picture a simple circle of nylon shag-pile carpet with a wedge-shaped concept car on it, penned by Gandini. The only adornments on the stand are a white flowerpot and a peroxide blonde wearing a plastic jumpsuit. ... In my imagination every stand is like this in Geneva in 1972, even Austin Morris. Sadly I missed that era but 45 years later I find myself in Geneva in 2017, witnessing another chapter unfold in the auto industry. Instead of Gandini wedges, every stand this year featured a self-parking, interconnected hybrid touchscreen-on-wheels with video cameras instead of rear-view mirrors. Perhaps it's because of this homogenous propaganda message of 'a new dawn' ~ a 21st century revolution of smartphone apps, battery motors and please-don't-mention-the-diesels ~ that

made something really stand out this year: the girls in the plastic jump suits are still here. Yet in the midst of all [the] stylised, politically correct perfection, you'd come across a stand with a blonde in a revealing plastic dress, her fake grin held up by a scaffolding of make-up as she tries to ignore the agonisingly sharp heels. For some reason, this year more than ever, I found it unbelievably tacky.'

Citroën has not been immune to sexist advertising. Whether it be promoting a particular model as just right for the ladies, or that another is only for the men, Citroën like pretty much every other brand has transgressed and crossed lines that today they would not even approach.

As Julian Marsh has noted in one of his excellent 'Iconoclast' articles from 1997, 'Citroën is no stranger to using women in their ads. The 5CV was advertised back





# Madmen & Advertising

in the Twenties with pictures of women behind the wheel and this theme was employed on many subsequent models ~ presumably the intention was, somewhat patronisingly, to infer that the controls were sufficiently light and the cars sufficiently manoeuvrable to allow the 'little lady' to drive it without too many problems.

Gina Lollobrigida was used in the DS launch and pictures of Brigitte Bardot were also employed later.

Despite the arrival of the 'swinging '60s', Citroën, both in the UK and France continued to hold with the idea that a woman's place was, if not in the home, certainly at the beck and call of husband and family. Citroën Cars [UK] in their brochure for the Bijou depicted how easily Mrs Middle-Class could collect the children from school, undertake the shopping and most importantly

of all, ferry her be-suited, bowler-hatted husband to the train station. Remember, it was in all probability Mr Middle-Class who had picked-up the brochure and subsequently bought the car for his stay-at-home wife.

So, what has all this got to do with advertising for the GS? Well, as part of my research for this edition of Front Drive, I delved into the dark recesses of Julian Marsh's excellent Citroën website. There I found images of some rather nice looking French advertisements for the GS.

Headlined 'GS for Men' [with a handy French translation below] it could easily be a period magazine ad for the Chrysler Valiant Charger or the Holden Monaro. When you think about it, it is just as sexist, when viewed from today's perspective, as the Bijou imagery of Mrs Middle-Class dropping Ronald off at the station!



## GS FOR MEN

Enticing, lurking on their 4 wheels, the GSX awaits loyal, ready to react to the slightest sign. Their nerves are on edge and it is enough to tickle the accelerator and they start immediately. Well trained, they obey every gesture. They are at one with the road and you can rush it without danger. With their 4 high pressure assisted disc brakes and their hydropneumatic suspension, they will never betray your confidence. Composed of gas and a special liquid, the hydropneumatic suspension is extremely effective even after 100,000 km.



Indifferent to weight, it allows you to ride with wife, children and luggage in complete safety.



Automatic height correction instantly adjusts ground clearance based on load. On

bad roads, the steering with pivots in the wheel centre, it maintains a perfect trajectory and prevents vibrations from being reflected in the steering wheel. Made to be driven on duty, the GSX does not bother with the superfluous, but in their equipment nothing is missing for a virile and safe drive: 2 speed wiper, headlights with long range iodine bulbs, seats



with support incorporated head restraints, a complete dashboard with tachometer, oil pressure indicator, dashboard clock, etc. The GSX and the GSX2 are cars that will be given over



entirely to those who like to drive.

GSX-GSX2

GSX 6 CV - 21.900 F - GSX2 7 CV - 23.900 F - Prix TTC, hors taxes, TVA et 10%.



# Madmen & Advertising

## You can always say it's your wife's.

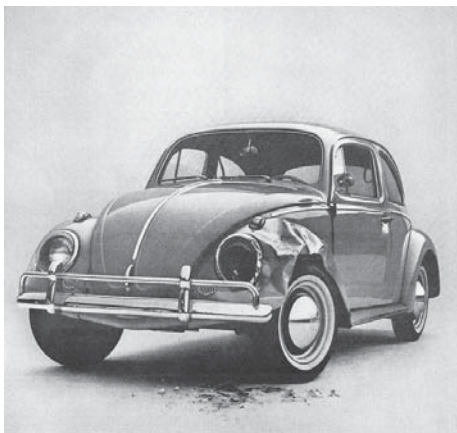
Nobody in his right mind would buy a Dyane with the idea of impressing the neighbours. Which does, ironically enough, impress the neighbours. So why give your wife all the credit? You buy a Dyane because it has five doors and a sunroof, independent suspension on all four wheels, petrol consumption that makes it almost as economical to run as a bicycle, and a tough reliable engine that goes on and on and on.

All this from only £637.15 (ex works inc. P.T.). Visit your local Citroën dealer or write for brochure and list of agents to: Citroën Cars Ltd, Dept. C3, Slough, SL1 4QA.



CITROËN DYANE

Also dating from the 1970s are the two press advertisements for the Dyane.



Sooner or later, your wife will drive home one of the best reasons for owning a Volkswagen

Women are soft and gentle, but they hit things. If your wife hits something in a Volkswagen, it doesn't hurt you very much. VW parts are easy to replace. And cheap. A fender comes off without dismantling half the car. A new one goes on with just ten bolts. For \$24.95, plus labor. And a VW dealer always has the kind of fender you need. Because that's the one kind he has. Most other VW parts are interchangeable too, inside and out. Which means your wife isn't limited to fender smashing. She can job the hood. Graze the door. Or bump off the bumper. It may make you furious, but it won't make you poor. So when your wife goes window-shopping in a Volkswagen, don't worry. You can conveniently replace anything she uses to stop the car. Even the brakes.

## What's a nice girl like you doing in a place like this?



Sitting pretty.

The Citroën Dyane has five big doors and a two-position sunroof. But it isn't only the sun that makes you love the Dyane. There are many others attractive things about it. Like four big comfortable seats (which are removable for picnics) and the amazing amount of space inside. Up to 46 mpg and 72 mph.

A robust air-cooled engine with front-wheel drive for grippy cornering. Michelin radials on big 15" wheels. Alternator. Heater/demister. Vanity mirror. Jersey nylon upholstery. Go-anywhere independent suspension. Which all goes to show that you're not just a pretty face. Visit your local Citroën dealer or write for free colour brochure and list of agents to: Citroën Cars Ltd, Dept. B7, Slough, SL1 4QA.

CITROËN DYANE

From a similar period is the VW press advert which is a little more sexist in its clear implication that women are not good drivers. A later execution, in common with the Dyane examples, is the Mini automatic magazine ad, also reproduced.

Clearly of more recent vintage is the German magazine ad for the Mark 5 Golf [2003-2010] with the benefit of Park Distance Control. I was rather surprised that any company would use such an approach to promoting such an important safety feature in the 21st century.

Of course, we all know that the car you drive, especially if you are man, has a vast impact on you level of sex appeal. Or at least,

that is what the ad-men would have us males believe.

It is an approach particularly prevalent in the arena of sports cars, muscle cars and by extension sporty cars, or at the very least those with sporty pretensions.

I first became aware of this apparent connection in the 1960s and '70s when British Leyland [yes, them again] pushing its outdated piece of sports car kit [the MGB and MG Midget] assured us that the mother of the girl standing provocatively front and centre of the ad would not like it.

Locally the Monaro, Falcon Coupe and Valiant Charger all played in this field. Although from what I have seen on-line the scantily-clad girl was more likely to be seen in the ads for the Falcon Pan-

el Van or the Holden Sandman than the Monaro or Coupe.

But not so Chrysler: Here George's fidelity to Betsy [an aged Jaguar] has been thrown to wind now that he drives a Charger and is fawned over by Ann, Penny, Sue, Chris and Wendy.

On the other hand why Subaru thought anyone would believe that their 1973 GL Coupe, with its 1.4litre horizontally-opposed 4-cylinder engine was either spirited or required taming is anyone's guess.

Hmmm... I am suddenly reminded that the Citroën GSX was powered by a 1.0litre [not even the 1.2litre] horizontally-opposed 4-cylinder engine, and that was a car for men.

But, frankly these examples are

**YOUR MOTHER WOULDN'T LIKE IT.**

**MG**

94.5 bhp, 109 mph, 0-50 in 8.0 seconds, £1,393.00

**The Mini Automatic. For simple driving.**

**Parking made easy.**

**The Volkswagen Golf with Park Distance Control.**



# Madmen & Advertising

relatively mild in comparison with some of the worst sexist excesses of the car industry which to my mind have been perpetrated by BMW [for second-hand BMWs in Greece in about 2011] and Pontiac, for its 1957 Star Chief. Leigh F Miles ~ Editor

**The Subaru GL Coupe. Like a spirited woman who yearns to be tamed.**



Once George only played with Betsy.



Now George plays with Ann, Penny, Sue, Chris and Wendy.



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



**STUCKEY TYRE SERVICE**

RACING SINCE 1972



828 Sydney Road Brunswick Victoria 3056 Phone (03) 9386 5331 [www.stuckey.com.au](http://www.stuckey.com.au)

## For Sale

UNLESS OTHERWISE STATED ALL PRICES SHOWN EXCLUDE RELEVANT GOVERNMENT TAXES AND CHARGES.

### ID 19

Andrew Johnson has an ID 19 for sale

- Aussie-built [C&G Series 6103. Pleasingly, the engine No matches too!]
- Whole [save for spare wheel/door card and a broken rear indicator lens.]

Would like it to go to someone genuinely interested in such vehicle who will do something with it. Floor is stuffed and to some fair extent the side rails of frame. For an enthusiastic talent, it is worth the look. Garth Foxwell has some 30 photos if someone wants to see, otherwise the fellow's details are: Andrew Johnson, Ph: 0432 539 992 and asking \$1,500. If anyone calls him, don't rely on leaving message and being heard and do reference the Car Club ad! Garth Foxwell 0427 971 488 [44/03A]



### 1958 BERINI MOPED BICYCLE

28" Malvern Star gent's bicycle with original green pin-stripe paint. Has 3-speed Sturmey-Archer hub gears. Bought for £15 in Feb 1958, it is fitted with a 32cc Dutch Berini M-13 2-stroke motor that drives onto front tyre. Back-pedal brake. Good tyres. Mudguards & rear packrack. Rare machine. Family heirloom. Owners handbook and magazine articles. Goes well. Good condition. No reg'n required. [Some parts still available ~ see Berini website. Nearest agent is in Rotterdam] \$2,000. Contact: Warwick Spinaze, Tootgarook, Vic. 0407 016 719 [44/3]



### 1950 CITROËN 11B

My 1950 Citroën 11B Normale [209030] project is sadly for sale, as I'm no longer able to get back into restoring it. The car used to be another member's car [Peter Fitzgerald] and was named 'Moriarty'. It is complete, although the interior is a bit of a mess, partly disassembled interior by previous owner ~ and I kept it the way I got it... The crown wheel and pinion are worn beyond repair and would need to be replaced if restored to original. I have acquired an ID 19 engine and 4-speed gearbox with the intention of fitting that to facilitate better maintenance and drivability. There is also a spare rough boot lid and a second spare wheel. Comes with original parts list and workshop manual and a complete photocopy and PDF. I have a few photos of it out of the 'barn' taken a couple of years ago... \$10,000 ONO. Contact Details: E-mail [joe.hovel@gmail.com](mailto:joe.hovel@gmail.com) or 0499 050 609. Joe Hovel, Bendigo. [44/02]







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

