



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

FRONT DRIVE

AUSTRALIA'S NATIONAL MAGAZINE
FOR CITROËN OWNERS AND ENTHUSIASTS



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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

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

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The Club cannot accept any responsibility for, or involvement in, any business relationship that may occur between an advertiser and a member of the Club.

Membership

Annual Membership is \$55. For overseas membership add \$17.50.

Life Members

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

Rob Little	2012
Ted Cross	2012
Peter Boyle	2003
Jack Weaver	1991
Nance Clark	1984

Cover Image

The cover image is of the editor's cx GTi Turbo II parked outside Muzeum-Zamek w Łańcucie [Łańcut Castle], some 300km south of Warsaw in Poland.

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ICCCR REPRESENTATIVE ~
Ted Cross [03] 9819 2208 [H]

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, Fordham Ave., Camberwell. Melway 60, B3

Deadline

The deadline for the next edition of 'Front Drive' is Friday, November 21, 2014..

CITROËNING

CH PLATES

Send your annual CH renewal form to PO Box 52, Balwyn, 3103. Please do the right thing and enclose a stamped, addressed envelope. If you do not have a Club Permit Handbook include \$5 and we will return one to you.

ABOUT TO ARRANGE A CLASSIC/HISTORIC PERMIT FOR YOUR CITROËN?

CH permit applications must be accompanied by a RWC or to have been inspected and approved by one of the Club's Safety Officers. The onus is on owners to demonstrate that their cars are safe. Feel free to consult our Permit Officers for advice regarding getting your car on the road, and keeping it there.

FOR SPARE PARTS & TOOLS
Contact Lance Wearne.
Phone: [07] 3351 8327 or
spareparts@citroenclassic.org.au [If you phone, please do it at a reasonable hour.]

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

OTHER CLUBS
VIC: www.citcarclubvic.org.au
NSW: www.citroencarclub.org.au/
WA: www.citroenwa.com.au
QLD: www.citroenclub.org
www.doublechevrans.aunz.com

Recently the Club has been all a flutter celebrating the 80th anniversary of the launch of the Traction Avant to a stunned world in 1934. You will be able to read about the Club's anniversary run next time.

But, 2014 is also the important anniversary of another Citroën ~ the CX. While the Traction and the DS were both launched to huge acclaim, fantastic sales and poor reliability records [both being impacted by the incomplete development of some parts of the vehicles] the response to the CX was considerably more muted.

As our article on page 20 makes clear the launch of Citroën's new premier model, 40years ago, was concomitant with the first oil crisis and impending forced marriage with ultra-conservative Peugeot. The penny-pinching around the launch model [CX 2000] is clear.

But in the guise of Prestige, GTi Turbo... even the 2400 Pallas... Citroën did bring to

market a true 'haut de gamme à la française'.

This is accompanied by a comparative road test from 1977 of the GTi alongside the BMW 528 and Ford Granada 2.8si. Oh, for the days when Citroën trounced BMW in the reviews. What went wrong?

Some might say, what went wrong was that Citroën stopped being truly innovative. Julian Marsh has put together an article on the abandoned technologies of the marque. This is reprinted from 'The Citroënian' with that Club's kind permission.

It might seem that we have just finished the Traction run, but around the corner there is 'On Safari' with Graeme and Lee Dennes in March, Teddies Terrific Tour in the lead up to Easter, CitIn [of course] a post CitIn run to the Flinders Ranges and if that is not enough what about joining Brian and Esther Wade for the 60th Anniversary of the ID/DS?

Enjoy,
Leigh F Miles



What we in Melbourne have seen of the East-West Link shenanigans of the last few months or so has tempted me to say a few words. Much brought about not by my own feelings but those of a CCOCA member whose home and workshop are going to be heavily impacted. The question is will this link benefit one and all. Displacement of thousands of people and hundreds of residences and factories does not seem to balance the need to scoot from one part of the city to the other. My garden plot and those of my 700dd fellow gardeners here in the west was going to be demolished to make way for a massive flyover. This naturally got us up in arms and we got together for a photo shoot where a cameraman from The Age newspaper took a photo of a dozen or so of us with pitch forks at the en guard position.

Heaven help any East-West link supporter who may have stumbled across us. The upshot of that photo in the next day's paper had the Link Melbourne Authority looking for another option. The Link has so many twists and turns, option upon option, mind changes that the considered opinion is that the whole thing is shambolic. How does this affect the overall membership as and when they may use their club car on club runs

and using the link... probably nothing.

The committee is working on a number of ideas to ensure CCOCA moves along with the times. They include a membership survey [what again you say!] to find

out what really makes you folks tick and what tickles your fancy when it comes to partaking in CCOCA activities and what it you expect and need from your Club.

We would like to see more younger Citroën owners or fanciers join our ranks. So a call is out there to assist the committee with whatever ideas you may have to make sure CCOCA is around for many years to come.

We are looking at a number of great anniversaries [one of which, the 80th Traction birthday has just completed] but there is a 60th DS/ID anniversary one next year. Top line details for this run can be found in A-Tractions. Then there is the annual CitIn and a Raid as well. We will publish the details for this event as soon as they come to hand.

There are a swag of new ideas coming through with the able assistance of the appointment of Lee Dennes as Activities Coordinator [we still need members to not only suggest outings and such like but to plan the occasion] and the website will be your main mouthpiece so to speak

Ed Sed

Contents

ED SED	PAGE 4	DESOLATION & DECAY	PAGE 28
PREZ SEZ	PAGE 5	PERIOD PIECE: WHAT CAR? 1977	PAGE 34
A-TRACTIONS	PAGE 6	ABANDONED TECHNOLOGIES	PAGE 42
ON SAFARI WITH GRAEME & LEE DENNES	PAGE 14	FLEET FOLLIES	PAGE 50
TEDDIES TERRIFIC TOUR	PAGE 16	CLASSIFIED ADS	PAGE 53
CX: YOUNGTIMER	PAGE 20	CITIN 2015	PAGE 54

PREZ SEZ

with the magazine there on hand to reinforce the fact. And remember, there is no reason why our interstate members cannot arrange an event either. Think about it and give Lee a call to discuss your idea.

ting the right parts to you on time at the best cost is an incalculable asset for the Club.

Our web wallah Bruce Stringer is an Einstein with the digital age that we live in and I strongly suggest that you use our website more so than before because it now offers a lot more than times before.

The saga with the Club Permit Scheme in Victoria continues. Victorian members will have received a copy of the letter we received from VicRoads seeking the Club's response to their planned changes. We have now responded with a letter being sent to VicRoads recently to voice our feelings over a number of issues. I hope to be able to report on this soon.

Safe and enjoyable motoring.
Max Lewis ~ President

We continue to strive to keep people on committee and we will be seeing a number of significant changes in the coming year so again I ask / plead / cajole / threaten?? you to come forward with your expertise... our editor is going to relinquish his post in the near future and the secretary may elect to go as well.

On a positive note, I have had a number of spare parts dealings with Lance up in sunny Q and I will say that his concern for get-

PLEASE NOTE: IF NO BOOKINGS HAVE BEEN RECEIVED FOR AN EVENT BY THE BOOKING DEADLINE, THE EVENT WILL BE AUTOMATICALLY CANCELLED.

the visit to the Field and Artillery Museum at Nar Nar Goon will provide a reminder of what has gone before. After leaving the museum, we will drive to Jindivick, a rural community with an artistic bent to have lunch. We then continue our scenic journey to Bunyip for afternoon tea.

The Light Horse and Field Artillery Museum houses a truly unique collection of restored horse drawn vehicles along with memorabilia relating to the Australian Light Horse. This remarkable achievement has been accomplished by the Dingle family over the past 26 years with little or no funding. <http://www.lighthorsemuseum.com.au/>

Jindivick Harvest Kitchen is known for its use of fresh produce from the regional areas around Gippsland. Set amongst the rolling hills of West Gippsland it has both the views and the menu to cater for everyone's tastes. www.jindivickharvestkitchen.com.au

Itinerary:

9.45am: Meet at the Museum
10:00am: Light Horse and Field Artillery Museum, 200 Bessie Creek Road, Nar Nar Goon
11:50am: Depart for lunch at Jindivick.
12:30pm: Jindivick Harvest Kitchen, 1070 Jacksons Track, Jindivick
2:00pm: Depart for Afternoon Tea at Bunyip



A-TRACTIONS

• **NOVEMBER**
DAY RUN: WEST GIPPSLAND
WHEN: Sunday, 23 November
TIME: 9:45am
WHERE: Field and Artillery Museum, Nar Nar Goon
Melways 319, D2

COST: See below
BOOKINGS: Essential by Saturday, 15 November
CONTACT: Lee Dennes, 04 3828 6181
activities@citroenclassic.org.au
As the centenary of many battles overseas is being commemorated,

Maps will be provided on the day for directions to Jindivick and Bunyip.

Cost

Museum: \$10 inc. morning tea
Jindivick Harvest Kitchen: At your own cost [Set Menu or a la

WHERE: Robert & Kay
Belcourt's, 69 Karnak Rd,
Ashburton

COST: Free

BOOKING: Essential
by 1 December

BRING: Refreshments, hats if
the weather is kind to us.

CONTACT: Lee Dennes,
04 3828 6181
activities@citroenclassic.org.au

carte depending on numbers].
Afternoon Tea: Provided

CLUB MEETING

WHEN: Wed, 26 November

TIME: From 8:00pm

WHERE: Frog Hollow Reserve
Rooms, Fordham Ave.,
Camberwell. Melway 60, B3

COST: Cheap eats

BOOKING: Not required

CONTACT: Lee Dennes,
04 3828 6181
activities@citroenclassic.org.au

• DECEMBER

CHAT TUESDAY

WHEN: Tuesday, 2 December

TIME: 10:30am

WHERE: Jetty Café,
cnr Jetty and
Point Nepean Rds,
Rosebud. Melway 158 F12

COST: Cheap Eats

BOOKING: Not required

CONTACT: Warwick Spinaze
04 0701 6719.

CCOCA CHRISTMAS LUNCHEON

WHEN: Sunday 14 December

TIME: From 12:00pm

This year our Christmas function will be a luncheon which is being held on a Sunday. CCOCA will be providing a delicious catered spit roast for our enjoyment. The change to a Sunday and daytime hours will hopefully accommodate those of you who have distances to travel and prefer not to drive during the evening.

Come along and celebrate with your Committee and club members the end of another very productive and enjoyable CCOCA year.



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Fax: 03 9819 2208
Mobile: 0400 59 2208
email: ted@123ignition.com.au



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• JANUARY 2015

RACV GREAT AUSTRALIAN RALLY

WHEN: Sunday, January 18
TIME: 8:30 for a 9:00am start
TO: Mornington Racecourse

A-TRACTIONS

RACV Great AUSTRALIAN RALLY

COST: \$35per vehicle
BRING: Picnic gear
BOOKING: Preferred
CONTACT: Colin Brown
[03] 9739 4829

at the rally office, or
colin.brown@hotmail.net.au
WEBSITE: www.
greataustralianrally.com.au/

Planning for the 2015 Great Australian Rally is complete. The brochure/entry form is available from the web site. We encourage you to get involved ~ both to raise money for Peter Mac, but also to showcase your vehicle. Last year we achieved an excellent display of eight-hundred-plus vehicles at Mornington Racecourse, on a perfect summer's day. The start at the Westernport Marina at Hastings was certainly more popular this time around. We were able to donate \$60,000 to Peter Mac in 2014.

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AUSTRALIA DAY HISTORIC CAR DISPLAY



Australia Day

WHEN: Monday, 26 January
TIME: Participants: 10:00am,
Spectators: 12:00pm

WHERE: Participants
Northland Shopping Centre
Spectators
Kings Domain Gardens,
Linlithgow Ave., Melbourne.
Melway 2F J9

COST: Free
BOOKING: Spectators:
Not required
CONTACT: Lee Dennes,
04 3828 6181
activities@citroenclassic.org.au

More than 450 veteran, vintage and classic vehicles will be on show at the annual RACV Federation Vehicle display.

Celebrate RACV's involvement in the Victorian community with free RACV giveaways and RACV's community partners Royal District Nursing Service, Greening Australia, Victorian Opera, National Stroke Foundation, Alzheimer's Australia and The Smith Family for lots of fun, games and give-aways.

The Gardens will feature a host of free activities for all, scrumptious food stalls, and entertain-

ment galore. See working dog displays, try soccer, tai chi, mini-golf and a range of other active and fun activities. Learn to relax through laughter, have a health check, go prospecting and handle baby animals. See our emergency services and a variety of community organisations.

Proudly supported by RACV in conjunction with the Federation of Veteran, Vintage and Classic Vehicle Clubs.

CCOCA'S AUSTRALIA DAY CELEBRATION

WHEN: Wednesday, 28 January
TIME: From 4:00pm
WHERE: Frog Hollow Reserve
Rooms, Fordham Ave.,
Camberwell. Melway 60, B3

COST: Free
BOOKINGS: Not required
BRING: Rugs, chairs, tables,
food drinks etc for
a picnic or barbeque.

CONTACT: Lee Dennes,
04 3828 6181
activities@citroenclassic.org.au

This event's start time will give members time to beat the traffic and be home by dark if they so wish. We will have access to the Club Rooms at 4:00pm which will afford us the use of the rest rooms and shelter if needed. Let's do what Aussie's do best. Gather as friends and have lots of fun while we barbeque our favourite snag and celebrate living in this great country.

• FEBRUARY SPARE PARTS AUCTION & SAUSAGE SIZZLE

WHEN: Sunday, February 8
TIME: From 11:00am
WHERE: Kay and Rob

A-TRACTIONS

Belcourt's, Ashburton
COST: Free ~ unless you bid
BOOKINGS: Essential, by
February 1
BRING: Refreshments, chair,
table, sunscreen & your wallet
CONTACT: Kay and Robert

Belcourt,
[03] 9885 4376
clubshop@citroenclassic.org.au
The Club has an interesting stash
of DS and Traction parts that we
have decided would be better
placed in the hands of members
who need them than sitting in

garages of various members of
the committee. So, bring some
refreshments and your wallet
and bid for some exciting DS and
Traction parts. We plan to have
auctioneer-extraordinaire, Peter
'Luigi' Boyle holding the gavel.
So, you will be guaranteed a fun
day. Sausage sizzle provided free
to all attendees.

REMEMBER: YOU MUST RSVP
TO KAY AND ROB OR ADMIS-
SION MAY BE DENIED.

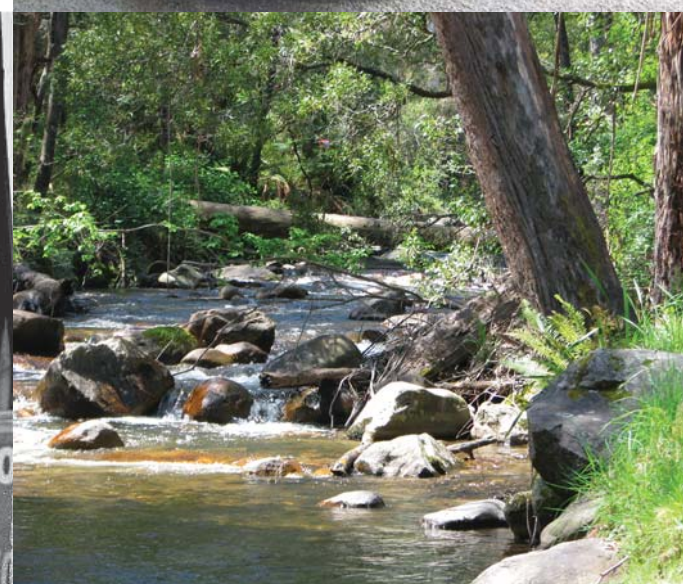
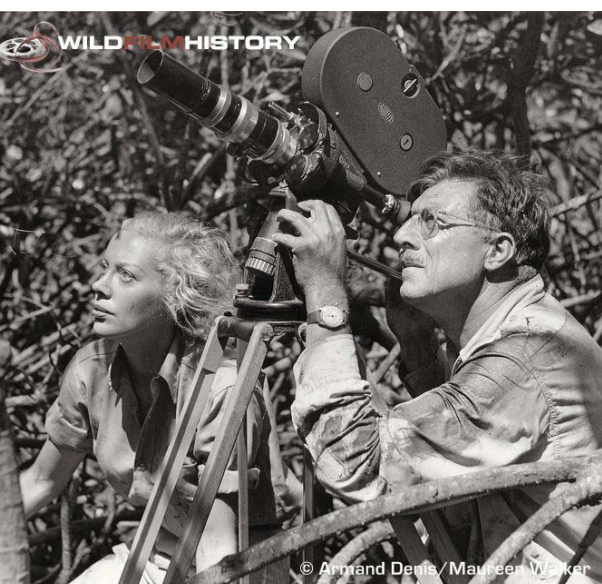
4 DAY HIGH COUNTRY SAFARI WITH LEE AND GRACIE DENNES

WHEN: 27 February
to 2 March
FROM: Pakenham, Vic
TO: Mansfield, Vic
COST: At own expense
BOOKING: Essential ~
see below
BRING: Everything for a

CONTACT: 4day excursion
Lee Dennes,
04 3828 6181
activities@citroenclassic.org.au

Yes everyone, it is Safari time
again and with something for
everyone to enjoy. This time we
are heading for Victoria's high
country where we will be staying
in Mansfield over three nights.
An array of accommodation has
been made available for you to
choose from.

We will enjoy everything from
the Mansfield Farmer's Market,
to the crystal clear waters of rivers
to climbing mountain summits,
both on foot and in our cars. We
will go back in time to when the
bushrangers ruled the bush and
see their hideouts whilst enjoy-
ing spectacular views, both from
on high and from the valley floor.
We will drive our cars on some
of Victoria's best scenic roadways



A-TRACTIONS

and soak up our fabulous outdoors.
We will visit the Bimbi Car & Memorabilia Museum
www.bimbi-museum.com
and the Kevington Hotel which was established in 1862

www.kevingtonhotel.com.au
Each evening we will gather at the camp kitchen to enjoy a meal, each other's company and a sing-a-long where hidden talents come to light.

Please note: We travel on some roads which are well-maintained gravel.

The above itinerary will be expanded and advised as further details are determined.

ACCOMMODATION:

Our accommodation is at the High Country Holiday Park, Mansfield.

[03] 5775 2705

www.highcountryholiday-park.com.au

Please note that cabins have been held for us until 31 January 2015. Speak with Jason, Nick or Lorraine and advise you are with the Citroën Group to obtain your 10% discount.

Do NOT book online!

• APRIL

TEDDIE'S TERRIFIC TOUR

WHEN: Tuesday 31 March to Friday 3 April

FROM: Melbourne
TO: Nuriootpa

COST: No rally fee, all costs to your account
BOOKING: Highly recommended
BRING: Everything for a 4day tour
CONTACT: Ted and Helen Cross,
[03] 9819 2208 or
04 0059 2208 [Ted],
04 1935 6963 [Helen] or
crossfam@ozemail.com.au

Full details on page 16.

CIT-IN '15: BAROSSA VALLEY

WHEN: Friday 3 to Monday 6 April

WHERE: Nuriootpa, Barossa Valley

COST: Adults from \$189pp, Under 12: \$60

BOOKINGS: Essential by 1 March

CONTACT: Liz Pike, [08] 8293 1800

04 0829 1800 or info@cit-in.org

WEBSITE: www.cit-in.org

Full details on page 54.

• OCTOBER

60TH ANNIVERSARY OF THE ID/DS ~ EARLY WARNING

WHEN: Friday 2 to Sunday 11 October

FROM: Victorian side of the Vic/NSW border

TO: Southern Highlands of NSW

COST: TBC

BOOKINGS: Essential

Full details shortly.



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Once again in 2015, Ted and Helen Cross will be hosting Teddie's Terrific Tour over the four days leading up to CitIn '15 in Nuriootpa, SA. Now, you might think that next April is a long time off, but as Helen points out

✂ kangaroos at Halls Gap,
✂ picnic lunch at the historic village of Harrow
✂ visit to Naracoorte Caves
✂ dinner at Naracoorte Historic Vehicle Club
✂ car ferry ride into Mannum

✂ visit to the National Motor Museum at Birdwood.

TEDDIE'S TERRIFIC TOUR

in her run-down on the event, school holidays loom in this time frame and early booking of your accommodation is highly recommended. Over to you Helen...

Each day is planned to be doing some interesting things and seeing new places, as well as cementing friendships over shared morning tea and lunch each day, pre-dinner drinks and dinners each evening. There is no actual cost involved to be part of the group, but some extra excursions along the way will attract a modest amount of money.

Highlights include...

We will arrive in Nuriootpa ready for the start of the first event of CitIn ~ Registration.

Citroënists from all states are most welcome to join us along the way.

For the first two nights, you will need to book your own accommodation ~ we have recommended cabin/caravan parks, and phone numbers are listed.

For the third night we have booked accommodation, please contact us directly.

At the time of writing, accommodation was available at the suggested venues.

I strongly suggest that you

book it ASAP ~ it will be school holidays in Victoria, and a day before school breaks up for holidays in South Australia, so accommodation is likely to be snapped up pretty quickly.

Also keep in mind that John 'Hendo' Henderson is organising a post CitIn touring trip to the Flinders Ranges for approximately one week. [Details in the next 'Front Drive']

DAY ONE: TUESDAY, 31 MARCH

Meet at 10.00am at BP Service Station/McDonalds restaurant at Rockbank, left hand side of the Western Freeway, Melway 355 C11.

Depart by 10.30am, on the Western Freeway towards Ballarat.

We skirt Ballarat, and our lunch stop will be in the main street of Beaufort at the Rotunda ~ BYO picnic or there are a few cafes and a bakery in town.

We then head north-west to Ararat and our overnight destination is Halls Gap in The Gram-

pians.

✂ Accommodation

Halls Gap Caravan and Tourist Park ~ cabins and campsites.

① [03] 5356 4251

Please make sure you mention Citroën car trip when booking to get our good discounted rate.

<http://www.hallsgapcaravan-park.com.au/> or

Halls Gap Log Cabins

① [03] 5356 4256

<http://www.hallsgaplogcabins.com.au/> or

Boronia Peak Villas

① [03] 5356 4500

<http://www.boroniappeakvillas.com.au/>

Pre-dinner drinks at Halls Gap Caravan and Tourist Park followed by dinner at the Halls Gap Hotel. <http://www.hallsgaphotel.com.au/bistro.php>

DAY TWO: WEDNESDAY, 1 APRIL

Depart Halls Gap at 9.30am on Grampians Road, direction Dunkeld, then Cavendish for possible BYO morning tea stop, then Balmoral, and lunch at the

Left to right:
The Rotunda at Beaufort, decorated to celebrate the coronation of King George v in 1910.

The unveiling of the memorial to Major Thomas Mitchell in Harrow in 1930.

The fossil cave at Naracoorte.



historic village of Harrow.

Visit to the Harrow Motor Museum for those interested, cost \$3 per person. <http://harrow.org.au/>

Harrow is also home to the Johnny Mullagh Cricket Centre,

<https://www.facebook.com/MiniJumbuk>

⌘ Accommodation

Big 4 Caravan Park ~ cabins and campsites.

☎ [08] 8762 2128

Please make sure you mention Citroën car trip when booking to get our slightly discounted rate.

<http://naracoorte-holiday-park.sa.big4.com.au/>

Pre-dinner drinks at Big 4 Tourist Park and dinner will be at the Naracoorte Historic Vehicle Club ~ about \$15 to \$16 each, BYO drinks.

The President of the Naracoorte Historic Vehicle Club is CCOCA member Andrew Begelhole and we are delighted to be spending the evening in his company.

DAY THREE: THURSDAY, 2 APRIL

Depart Naracoorte at 9.30am, drive to Keith for morning tea stop in park ~ BYO everything.

We then join the Dukes

Highway for quite a while, before turning right, heading towards Murray Bridge and Mannum, travelling on scenic route, arriving in Mannum on the ferry.

⌘ Accommodation

Tonight we are all in for a treat ~ we are sleeping together! The only accommodation available in Mannum for one night on the last day before Easter is a bunkhouse.

Before you all start groaning and panic, it is fine ~ there are 8 separate bunkrooms, we will be cosy and all get to know each other quite well! Need to bring your own bedding ~ pillow and sleeping bag.

Suggesting pyjamas/nightie and/or dressing gown!

<http://www.mannumcaravan-park.com.au/bunkhouse.php>

Pre-dinner drinks at The Bunkhouse followed by dinner at the Mannum Community Club. <http://www.mannumclub.com.au/>

DAY FOUR: FRIDAY, 3 APRIL

Communal cooked breakfast

at The Bunkhouse. We will sort out a roster for washing up the dishes, so beware!

We depart Mannum Caravan Park and drive to Mannum Falls for some most spectacular scenery. <http://www.mannum.org.au/html/mannum-waterfalls.html>

Forward ho for a visit to the National Motor Museum at Birdwood. Admission fee is \$12 by the carload ~ we may need to empty out a few back seats to fit people in. Picnic lunch on the lawn ~ BYO everything.

Then driving on to Nuriootpa. We should arrive early to mid-afternoon in time for CitIn 2015 registration.

LET THE FESTIVITIES BEGIN!

Interested? Want to know more or simply book yourselves in? Contact Ted and Helen Cross.

✉ crossfam@ozemail.com.au

☎ [03] 9819 2208

☎ Ted 04 0059 2208

☎ Helen 04 1935 6963

Left to right: Derelict farmhouse near Mannum. A Holden station wagon with period advertising at the National Motor Museum at Birdwood. Touring the vineyards of the Barossa Valley.

TEDDIE'S TERRIFIC TOUR

home to Australia's largest collection of Sir Don Bradman memorabilia. <http://www.johnnymullaghrickcentrecricketcentre.com.au/>

We then go on to Edenhope, and we head across the border of South Australia into Naracoorte. Drop bins for fruit and vegetables are at the border: they are not to be taken into South Australia.

Visit to Naracoorte Caves. <http://www.environment.sa.gov.au/naracoorte/Home> and Yulgilbar Wood Gallery http://www.woodart.com.au/a_yulg.htm

The MiniJumbuk factory outlet shop is in the main street. [for those who like a bargain or two].



According to some media, French manufacturers have always failed at the high end of the market. This is a big mistake by journalists with short memories: The CX is the exception that disproves the rule.

And with panache...

In 2014, anything more than a year old is considered irredeemably an antiquity; including in the media. To try to explain to a 'modern' journalist what Citroën was, at the time of the DS

and CX, makes you seem old and out of date. However, the 'Double Chevron' has demonstrated for more than a half century, its ability to go against the trends of the automotive industry and still know unashamed and al-

most constant success. The best proof being perhaps that strange vehicle, the Ami 6, which was the best-selling car in the French market during 1966.

That said, Citroën deliberately selected its audience and made

CX: Youngtimer



no secret of it. Rather than quietly seduce all-comers 'Quai de Javel' preferred the 'fanaticism' of a minority, overwhelmed by the relentless crusade of technical progress, to the point of regularly accepting the need to pay the price

of risky development. In parallel, the crusade in question was done with utter disregard for any convention: technical or stylistic. This to the point that the fanatics constantly oppose the majority of car buyers who seem perpetually allergic to the quirks of the brand, pre-

ferring the conventional to the futuristic.

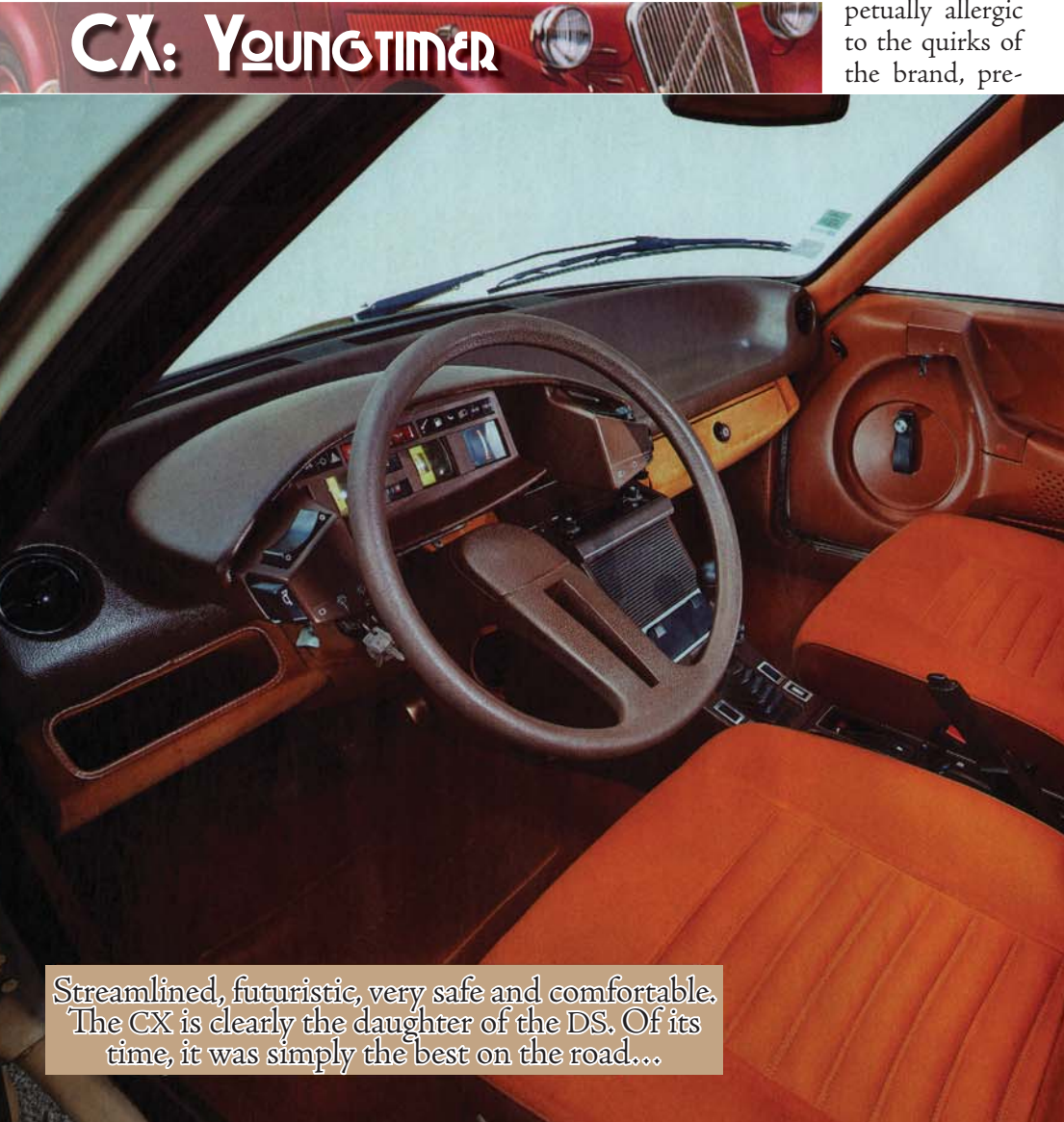
BORN IN ADVERSITY

The CX was launched as the new 'high end' range for Citroën and it was gradually 'parachuted' in to replace of the extraordinary ds. With the new factory just for the CX at Aulnay-sous-Bois, which was recently closed, need-

ing to be kept busy, being the least of its troubles. A little like the way a pyro-technician composes his final display, the final years of the Michelin era ~ owners of Citroën from 1934 to 1974 ~ were a flamboyant display, with the release of a DS capable of 200kph, and the redemption of Maserati, with the fabulous SM and the launching of the only French car with a rotary engine, the GS Birotor.

This fury of technological innovation was abruptly halted a year before the release of the CX by the first oil crisis in 1973. The marque's new flagship had to therefore deal with the impossible task of succeeding an icon, in difficult economic conditions, with the introduction of the speed limitations and apart from the market situation being forced into the arms of the most conservative of the French manufacturers; Peugeot! Therefore, the great new Citroën became a kind of final testament to the technical talents of the brand. But in the future, Citroën will again be able to demonstrate its creativity. And yet, in the context

CX: YOUNGTIMER



Streamlined, futuristic, very safe and comfortable. The CX is clearly the daughter of the DS. Of its time, it was simply the best on the road...



of its time, the CX is hailed as a great technological achievement ~ it wins many press awards while being smarter and less eccentric than its predecessor. At this point the brand intends to take on some more serious rivals,

convinced? Just put it beside an Audi 100, just for fun...

The cockpit comes from this same school of thinking: the Conventions of the Devil! All soft curves and flared shapes, the fittings are made in futuristic abstract forms. The shape removes any dangerous pro-

jections to make it safer, with extensive padding including in the door linings and the steering wheel. On the other hand, the lack of a quality of finish of the CX gives the first indication of the cost cutting which raged at Citroën prior to its launch. The lack of harmony in the colours, the sparingly distributed carpets, heating ducts with gaping holes in the side of the console. All these things were more associated with their oft avoided German contemporaries. However

the ergonomics, overall are excellent ~ remember the famous satellite controls at each end of the dashboard and the rotating drum dials. With familiarity, even those controls that confused us at first glance become accepted.

In 2014, what remains admirable about the CX is that it was a real success [over 1 million were sold in fifteen years] with owners thumbing their noses at all of the conservatives. All this despite, it must admitted, a disappointing technical specification during the first two years of production; at least in the eyes of lovers of the DS ['DS-ites']. It is enough to start to understand why the large, single spoke steering wheel is so important here: inexplicably, the famous Diravi steering, inherited from the DS, was delayed and not available the first year. It must therefore deal with heavy steering. Without Diravi, the CX was

difficult to manoeuvre when stationary which made driving in tight places tedious. Once on the move, the steering offers real accuracy but a roundabout imposes further problems caused by the steering lock. This is surprising when you know the reactivity of the Diravi.

In the same way the patient 'DS-ites' discovered the meagre engine and a single four speed box. Particularly in the case of the CX2000 it had neither speed nor flexibility. Both the accessibility and capacity which was far from those of its predecessor, with the much longer wheelbase. Not to mention the equipment levels which were initially spartan, especially for those habitués of the DS Pallas. Yet, the CX also knows how to flaunt its talents, with good road holding, which in the fine traditions of the house, easily achieved their goal of beat-

CX: YOUNGTIMER

beginning with the Peugeot 504 [which had been launched in 1968]. This is not misplaced confidence for we know that the CX is equipped with a bold character.

CONVENTIONS OF THE DEVIL

You simply need to look at a CX to recognise that it has as much aesthetic personality as a DS. It does seem vaguely inspired by Pininfarina's design study for BMC, based on the 1800 but the result is still devilishly styled. Especially if we think to the shoeboxes of its competition. Not



ing the competitors.

ABOVE THE FRAY

In addition to the precision of the front end, perfectly insulated from road vibrations, the car holds the road no matter the surface, the four wheels firmly on the

the inevitable hydropneumatic suspension, unaltered by the load and able to be raised at will. While firmer than the DS, the CX continues to have the ride we know, with a roll which can be the bane of some easily upset stomachs,

extremely flexible and forgiving. Anyway despite the ar-

ground, but with less roll than its predecessor. The axles are so well guided that the CX never deviates from its trajectory, even when hitting the worst pot holes. The braking also deserves praise, providing power and endurance with while also giving unparalleled stability, at a time when even newer rivals were skating to a stop on uneven road surfaces.

Everything is accompanied by the renowned comfort, thanks to

areas where the first CX, the 2000, falls short with its engine, finish and equipment, good genes do not lie: it's a Citroën! The excellent design provided the basis for more ambitious models: Prestige, Pallas and then with GTi. With these they had the key to the ultimate success of the 'haut de gamme à la française'.

5 REASONS TO INDULGE

- ⌘ The last iconic Citroën
- ⌘ Very exotic to drive

- ⌘ Dynamic qualities
- ⌘ Still very affordable
- ⌘ High level of comfort.

5 REASONS TO RECONSIDER

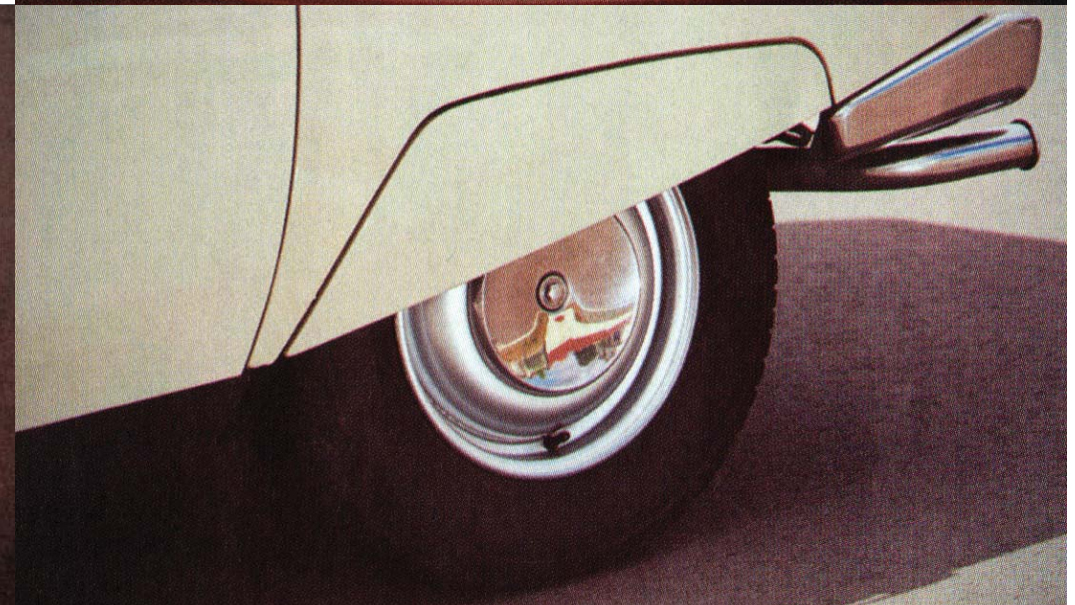
- ⌘ Sometimes too it sways too much!
- ⌘ Less refined engines

- ⌘ Cheap and poor quality finish
- ⌘ Corrosion often rampant
- ⌘ Heavy steering [without Diravi]

PURCHASE GUIDE

Citroën produced a total of
Continued on page 31

CX: YOUNGTIMER



DESOLATION & DECAY





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Continued from page 27

1,042,460 CXs, with multiple variations over the years. Here's the outline.

✂ 1975, launching in 2000 version [102hp], then 2200 [112hp].

✂ 1976: centre console with round air vents, option Diravi, commercialisation of the 2200 diesel [66hp], the break and the [115hp] Prestige.

✂ 1978, GTi [128hp] and 2500 D [75hp] models.

✂ 1980: the Reflex and Athena [106hp] replace the 2000.

✂ 1983: revised grille, arrival of

the turbo-diesel [95hp].

✂ 1984: 2.5litre injection [GTi, Prestige, sporting 138hp].

✂ 1985: appearance of the GTi Turbo [168hp].

✂ 1986: restyling [bumper, deck, cockpit...] with addition of a



22 TRS [115hp].

✂ 1987: the turbo-diesel upgrades to 120hp.

✂ 1990: Production ends for the CX sedans, Prestige and Limousine.

✂ 1992: end of the breaks and familiale.

Top price for a CX2000 in con-

DIDIER MARTINY

Founder of the regional club Generation CX, Didier is an avid enthusiast of the model. To the point of always having one or more, usually in very good condition.

'As soon as I discovered the CX, as a child, I fell in love. And I always had to have one. Gasoline, diesel, Series 1 and 2, I have owned so many variants over time. That is what brought me to establish one of the first clubs dedicated to the model, Generation CX, in the Moselle region. Today, I have still, alongside the 2000 that you have tried, a GTi Turbo 2 ~ the other extreme! And a rare Prestige in Verte Papyrus with a vinyl roof. But my '2000'

appeals to me for its simplicity and beauty. I partly restored it a few years ago, because the bottom of the doors began to rust. On the other hand, mechanically, she has not caused me concern. I also have a C6 for every day, which is the modern version of the CX!'



cours condition: €2,500 and for a concours GTi up to €7,500 but good deals can still be found.

EXPRESS CHECK

Enemy number one, corrosion, attacking base, rear wings [behind the rings], low wings

com]
 ~ cx Club of France: www.cx-clubdefrance.fr
 ~ Generation cx: <http://generationcx.Chez.com>
 ~ cx Basis: www.cx-basis.fr
 ~ Amicale Citroën cx: <http://amicalecitroencx.forumpro.fr>

Maintenance and parts
 ~ Cipere: www.cipere.fr
 ~ Sphere Discount: www.sphere-discount.com
 ~ Retro Design: www.retro-design.fr

TECHNICAL REPORT

Engine: 4cylinders
 front transverse
Fiscal horsepower: 11 CV

Displacement: 1,985cm³
Power: Max 102hp @ 5,500rpm
Torque: Max 153Nm @ 3,000rpm

Compression ratio: 9:1
Carburettor: twin throat Weber

34 DMTR 25
Transmission: front wheel drive, 4-speed manual gearbox

Steering: non-assisted, rack and pinion

Brakes, front: ventilated discs
rear: discs

Body: Monocoque steel, four-door, five-seater

Suspension, front: deformable quadrilateral, hydropneumatic suspension, anti-roll bar
rear: trailing arms, hydropneumatic suspension, anti-roll bar

Tyres, front: 185 SR 14
rear: 175 SR 14

Dimensions:
length x width x height:

4.63 x 1.73 x 1.36m

wheelbase: 2.845m

track [fr/rr]: 1.474/1.360m


weight: 1,265kg

boot : 475litre

fuel tank: 68litre

Performance:
max speed: 174kph
0 to 100kph: 13.1sec
standing km: 34.4sec

Fuel consumption:
constant 90kph: 8.2l/100km
constant 120kph: 10.2l/100km
city: 14.2l/100km

This article first appeared in 'Youngtimers', July 2014 and is from the editor's collection. 

CX: YOUNGTIMERS

and doors, rocker panels [behind the cover rails], floors front hood above the headlights surrounds quarter windows, windscreen and rear window, door to trunk bindings butts rear bumper and front sub-frame.

The engines themselves are very solid. Hydropneumatics reliable, apart from the aging of 'spiders' [low-pressure return hoses]. If there is negative camber on the rear axle, bearings of arm made need to be changed.

In the cockpit, many pour contacts and mediocre trim and poor upholstery fabric which does not age well. The rims are made of poor quality aluminium, and the doors are squeaky.

Drain the oil and change the filter every 7,500km. Replace the air filter every 15,000km, the LHM and spark plugs every 30,000km, liquid brakes and coolant every two years. On Reflex, Athena, 20 and 22, timing belt change every 120,000km or five years.

OUR GOOD ADDRESSES

Clubs and forums

~ cx Agency: www.l-agencecx.org
 ~ forum: www.iacitroencx.com



How Ford and Citroën joined the BMW market. Ford and Citroën move into the BMW market with their latest luxury performance saloons. Do they succeed?

There was a time when the

PERIOD PIECE: CX GTi 1977

GT, or Grand Touring car, was the province of manufacturers who produce somewhat exotic machinery. Now the marketing man has leapt upon the GT initials and we have been inundated with meagre family saloons that had mildly improved performance. Those cars did not deserve the GT title.

From the continent, however, came the renewed threat of sporting saloons wearing the badges of Alfa Romeo, Lancia and BMW. It seems odd to put BMW's 528 (£7,449) against two new pretenders in this bracket. Who would have thought of Ford and Citroën manufacturing cars to compete with it a decade ago? Yet that is exactly what Ford's new Granada 2.8Si (£5,910) and Citroën's CX2400 GTi (£6,350) are.

PERFORMANCE

All three combine good handling, performance and space more or less successfully. By far the quickest is the new Ford, which takes 8.9secs to reach 96kph from standstill, compared with the BMW's 9.8secs and the Citroën's 10.5secs.

The Granada's new 2.8-litre fuel-injected V6 engine develops 119kw and 220Nm of torque. The engine must be revved reasonably hard to produce good performance, but once past 4,000rpm it picks up and goes to its top speed of 188kph. Despite the apparent lack of low down torque,

the car's top gear acceleration figures are only fractionally slower than the BMW's but still some way behind the Citroën's. Overall gearing is good, with well-spaced ratios for easy town work or lazy motorway driving; top gear is particularly long.

Power steering takes the effort out of heaving the low profile Michelin tyres around, yet it doesn't affect the car's overall

ability to be driven hard and fast.

If anything, the brakes are slightly over-assisted but they remain progressive and sure. Not once did we have cause for concern although by the end of the test, they were beginning to fade.

It is some time since we have tested a 528, and we were looking forward to driving one again. Unfortunately we were slightly disappointed. The car is fast by most standards, but takes 9.8secs to reach 96kph from zero and goes on to a top speed of a genuine 193kph.

Like the Ford, gear ratios are well spaced. The engine has more power [127kw] and the greater torque [233Nm] is reached at lower revs than on the Ford. The latest versions have fuel injection, which should give them more

zip. Like the Ford, the BMW has power assisted steering, which is a boon for town driving and not too sensitive for country lanes and fast motoring. The brakes have a very solid feel to them.

Ever since the introduction of the CX range we have felt that Citroën's big car lacked power and torque, even with the introduction of the 2200 and 2400 models. But, with the addition of fuel injection to the 2400 engine, Citroën seem to be on the right road.

Citroën's 10.5secs to 96kph is relatively slow, but the car will go on effortlessly to its top speed of 188kph. Despite the fact that the car produces the least [95kw], it is still sufficiently quick. Its good top gear acceleration figures can be attributed to the relatively



low rpm at which peak torque [197Nm] is produced.

As with the other CXs, the GTi is fitted with VariPower steering. Although it takes some getting used to it is conducive to high speed motoring. The power

is a bit of a stretch for shorter drivers. The clutch pedal has a very long travel and, despite there being room, Ford have omitted a foot rest for the driver's left foot.

The Citroën's gear change is, comparatively, the worst of the three, although it isn't bad in its own right. Front wheel

brakes [discs all round] are also highly effective, although newcomers may find them over-sensitive.

As with other Fords, the new Granada has a smooth, light gearbox although the gear lever

drive cars tend to have less accurate changes, and the Citroën's is no exception, with its rubbery feeling. If one lets the spring loading do the work, however, it proves deceptively quick.

BMW's gearbox is smooth and

light, but is notchier than the Ford's, and it occasionally baulks while going into second from either first or third gear.

HANDLING

For its size, the Ford handles extremely well and is by far the easiest of the trio to drive quickly. The s pack includes a stiffer front anti-roll bar, variable rate rear springs and gas-filled rear dampers. It is these, plus the ultra-low profile Michelin TRX tyres, which give the uncanny road holding ability.

The natural tendency is to understeer, but with none of the inherent body roll of other models

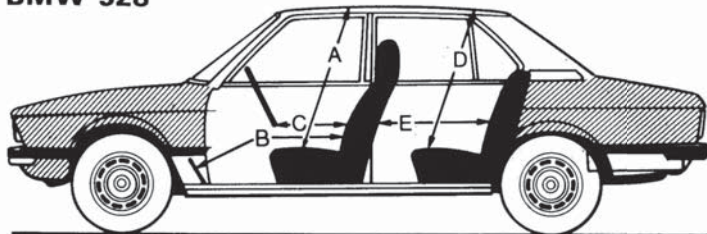
in the range. The wide tyres allow the adventurous driver to hold the car on long drifts through fast corners. On straight roads one is more aware of the noise that the car's suspension is making rather than feeling it, while it is very stable at high speed ~ as indeed are the BMW and the Citroën.

The BMW's all-independent suspension is too soft for its sporting pretensions and heritage. Hard cornering produces a wallowing sensation, with the suspension crashing on to the bump stops. It is a reminder of how BMW have compromised between handling capabilities and

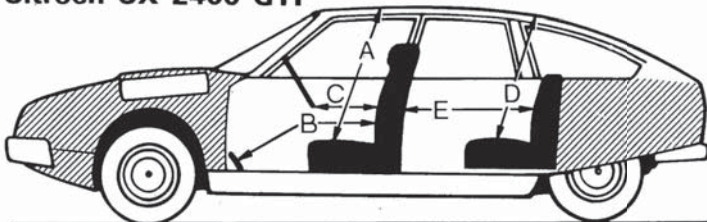
A:	91-94cm
B:	86-110cm
C:	27-51cm
D:	89cm
E:	66-93cm
L x W x H:	4.62 x 1.70 x 1.42m
W/base:	2.64m
A:	81-84cm
B:	84-102cm
C:	18-39cm
D:	83cm
E:	86-107cm
L x W x H:	4.67 x 1.73 x 1.35m
Height:	1.35m
W/base:	2.84m
A:	94cm
B:	94-112cm
C:	31-48cm
D:	89cm
E:	76-91cm
L x W x H:	4.75 x 1.80 x 1.37m
Height:	1.37m
W/base:	2.77m

PERIOD PIECE: CX GTi 1977

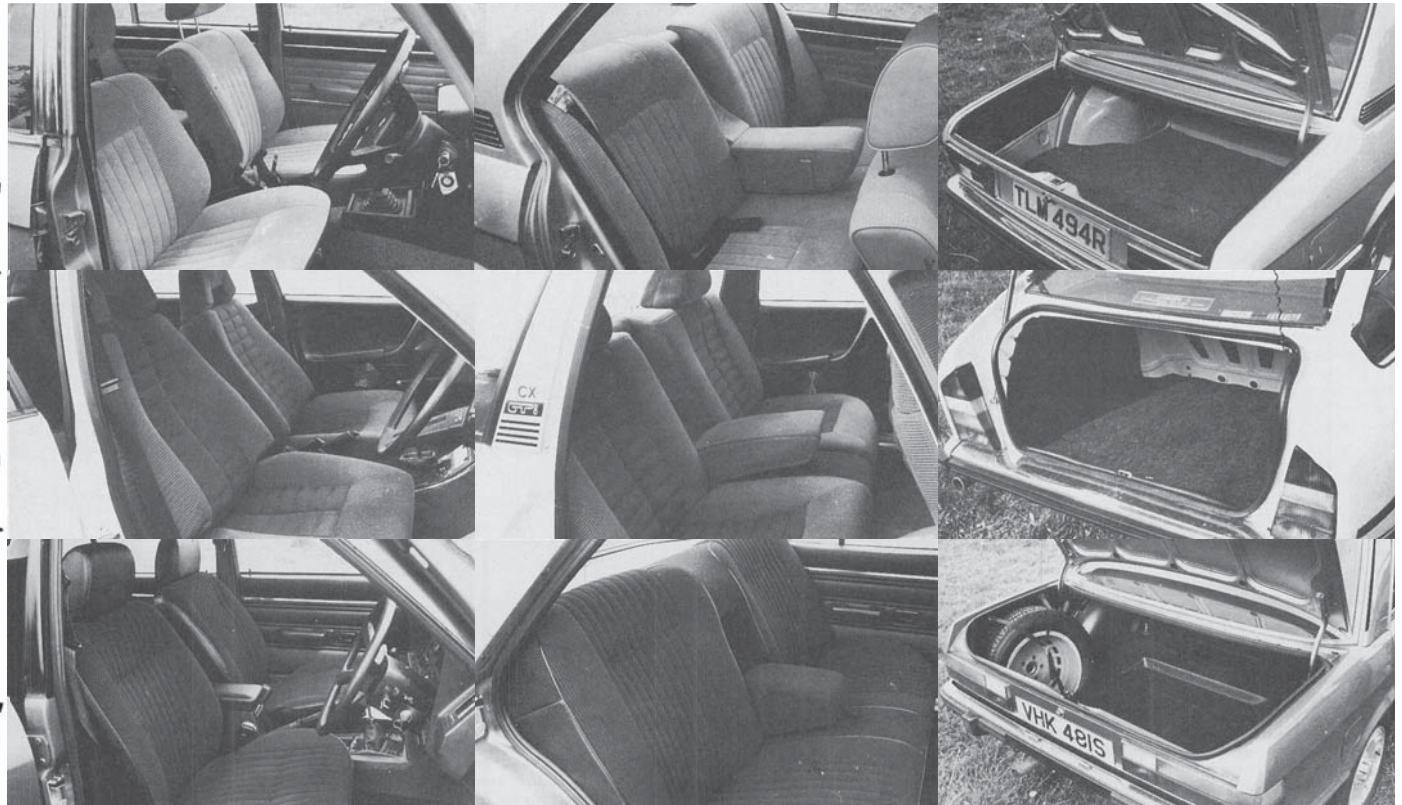
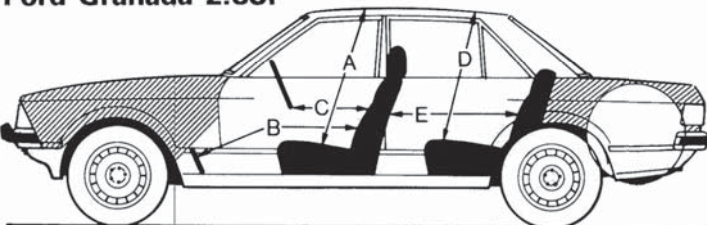
BMW 528



Citroën CX 2400 GTi



Ford Granada 2.8Si



passenger comfort.

Citroën have up-rated the GTi's suspension by increasing the size of the anti-roll bars and generally stiffening the hydropneumatic suspension. The car still lurches around quite consid-

As with the smaller Granada tested earlier this year, the 2.8si is extremely quiet. The car's clean shape, plus large amounts of sound proofing, prevent wind and mechanical noise from intruding on passenger comfort.

Even at speeds exceeding the legal limit, extraneous noise

erably, and is certainly a lot harder to drive fast than its two rivals. Nevertheless, stop watch times through our handling course reveal the car is only a fraction off the best time set by the Ford. Where the car really shows its strength is in its ability to eat up long miles of fast A-class roads or motorways with ease.

The Citroën still offers the best ride. The soft corduroy-covered seats are supremely comfortable, with the driver's having squab adjustment as well as the normal rake and fore-and-aft. All three passengers have plenty of leg and head room, and it is possible to travel many miles without signs of fatigue. The only criticism of the seating is that hard cornering shows up the seats' general lack of lateral support.

Engine and gearbox noises are well muted, although not as good as the Ford's. Wind noise is commendably low. However, a high speed whistle did develop during the course of our test. Interior ventilation is adequate, but the fan is needed most of the time to keep the interior cool.

is well muted.

The interior is deceptively large, with masses of leg and head room all round, even with the front seats extended all the way back on their runners. The cloth-covered front seats are comfortable enough, but seem to have been designed for rather portly persons. They lack the thigh and lumbar support that is needed in the car that has the Ford's cornering capability.

The ventilation system continues Ford's tradition of excellence, and not once during the test did we have to resort to using the very effective booster fans.

The BMW, on the other hand, is a more fussy and generally less refined car considering its cost. The engine has that characteristic Bavarian growl and is eager to tell the car's passengers that it is working hard. Wind noise is acceptably low, although the driver's door-mounted mirror creates quite a bit of turbulence. As with the Citroën, the BMW driver's seat features height adjustment as well as rake and fore- and-aft. This, combined with the adjust-

able steering column, means that most people can achieve an acceptable driving position. The seats are well shaped but incredibly hard, while the heavy pedals can make life tiring for lady drivers.

EQUIPMENT

One bone of contention with each one is that it has lever adjustment for seat back rake rather than the knurled wheel which is more sensitive.

All three have locking glove boxes, while the Citroën and BMW have map pockets in the backs of the front seats. Boot capacity in all three is perfectly adequate for four adults' luggage on a long journey. The Citroën has the lowest loading height, while luggage has to be lifted over the Ford and BMW sills.

By far the best equipped is the Citroën. Not only does it have electric windows at the front, but also a map reading light, under-bonnet light, front and rear fog lamps, sun visors for the rear passengers and blinds at the back for night driving. Alloy wheels, five-speed gearbox, electronic ignition, radio speakers and an aerial are also standard. The two-tone horn can cause old ladies and their dogs a real fright.

The fascia is the familiar CX one, with a tachometer and water temperature gauge [which is something of an afterthought] and a clock. All minor controls fall easily to hand, although we still wish Citroën would put self-

cancelling indicators on their cars.

The Ford is reasonably well equipped. It has a high pressure headlamp washing system, alloy wheels, and variable speed intermittent windscreen wipers. Inside the car are cigarette lighters front and rear, plus a tachometer [no red line] clock, oil pressure gauge and water temperature gauge. The black interior of our test car made it rather sombre, especially with the cheap-looking plastic fascia.

As with Cortina and Escort models, minor controls are confined to three column-mounted stalks, two to the right and one to the left. The test car was also fitted with the optional central door locking system and sun roof. Like the Citroën, fuel injection and electronic ignition are standard.

The BMW is the most spartan, not having any of the minor refinements of its two competitors. All the instruments and controls are housed in a neat binnacle directly in front of the driver, while twin stalks either side of the steering column control indicators and the wash/wipe system. The only things the BMW has that the others don't are adjustable steering column and comprehensive tool kit in the boot lid.

All three cars have carpeting throughout and internally adjustable driver's mirrors, those on the BMW and Citroën being electrically powered, the Ford's is manual.

PERIOD PIECE: CX GTi 1977

COSTS

None of these cars is going to be particularly cheap to run. They are quite expensive to purchase initially while their insurance is not cheap either: almost certainly they will be in Groups

6 or 7. Ford, with 1,390 dealers, compares very well with Citroën's 222 and BMW's 150.

All three cars have 12month unlimited mileage warranties.

None of the cars is particularly economical. They run on four

star fuel, with the Citroën coming out top with around

12.8l/100km, followed by the Ford and BMW on 13.5l/100km or so.

VERDICT

All three have their own virtues. The BMW has quality and distinction, while the Citroën has its superlative ride and a much higher equipment level than its competitors. The Ford represents a good marketing package. It doesn't look much on the surface, but, by golly, it goes.

Overall, the Ford must get our vote. It is the best compromise of the three. It is good value for money, though we would like to see the seats and fascia brought in line with the car's high degree of performance and handling. Still, we have no hesitation in saying that this is the best big car Ford has produced.

Coming a close second was the Citroën. In the past we have considered the CX to be a superb car let down by an elderly engine. The GTi's fuel injection and five speed gearbox go some way to masking this basic fault. The only real answer, for a car in this market, is a six cylinder engine.

PERIOD PIECE: CX GTi 1977



	BMW 528	CITROËN CX GTi	FORD GRANADA 2.8Si
PERFORMANCE			
Engine [cc/type]	2,788/s6	2,347/s4	2,792/v6
Peak power [kw/rpm]	127/5,800	95/4,800	119/5,700
Peak torque [nm/rpm]	233/4,000	196/3,600	220/4,300
Bore x stroke/valve gear	86 x 80/ohv	93.5 x 85.5/ohv	93 x 68.5/ohv
0-96kph [sec]	9.8	10.5	8.9
Max speed [kph]	193	189	190
50-80kph/80-110kph in top [sec]	8.9/8.9	6.7/6.3	8.0/8.9
Standing 400m [sec]/Terminal speed	16.9/141	18.3/126	17.0/134
Steering	worm/roller	rack/pinion	rack/pinion
Turns lock to lock	3.5	2.5	3.5
Brakes	S/Di/Di	P/Di/Di	S/Di/Dr
Suspension ~ Front	I/McP	I/HP	I/Wi/C
Rear	I/STA/C	I/HP	I/STA/C
EQUIPMENT			
Automatic gearbox	£390	☒	£294
Alloy wheels	☒	☑	☑
Electric windows [f/r]	☒/☒	☑/☒	☒/☒
Halogen headlamps	☒	☒	☑
Laminated windscreen	☑	☑	☑
Oil pressure gauge	☒	☒	☑
Power steering	☑	☑	☑
Central locking	☒	☒	☑
Under bonnet/boot lamp	☑/☒	☑/☑	☑/☒
COSTS/FITTING TIME			
Front wing	£54/2.5	£39/8.3	~
Front bumper	£65/1.5	£35/3.4	~
Headlamp unit	£14/0.75	£40/0.7	~
Clutch unit	£90/2.5	£46/12.1	~
Front Brake Pads	£10/1.0	£16/1.3	~
Alternator	£1.3/0.5	£47/0.45	~
Windscreen	£48/1.0	£126/4.5	~
Exhaust system	£91/1.0	£76/3.5	~

The BMW on the other hand was a disappointment. For its price we expected more ~ despite knowing the strength of the Deutchmark against the Pound. For the same money as the BMW

you could buy yourself the Ford and a nearly-new Mini.

This article first appeared in 'What Car?' magazine in December, 1977 and is taken from the editor's collection. ☞

Now that it seems pretty certain that Citroën has decided to abandon hydropneumatics^[1] [the C5 Crosstourer would seem to be the final iteration of this system], I thought it might prove interest-

single spoke steering wheel; headlamps linked to the steering; centre point/zero-offset steering; PRN ergonomics; anti-dive suspension geometry.

Citroën UK decided to edit the list so that the only technologies mentioned were those that were, at the time, still in use. This

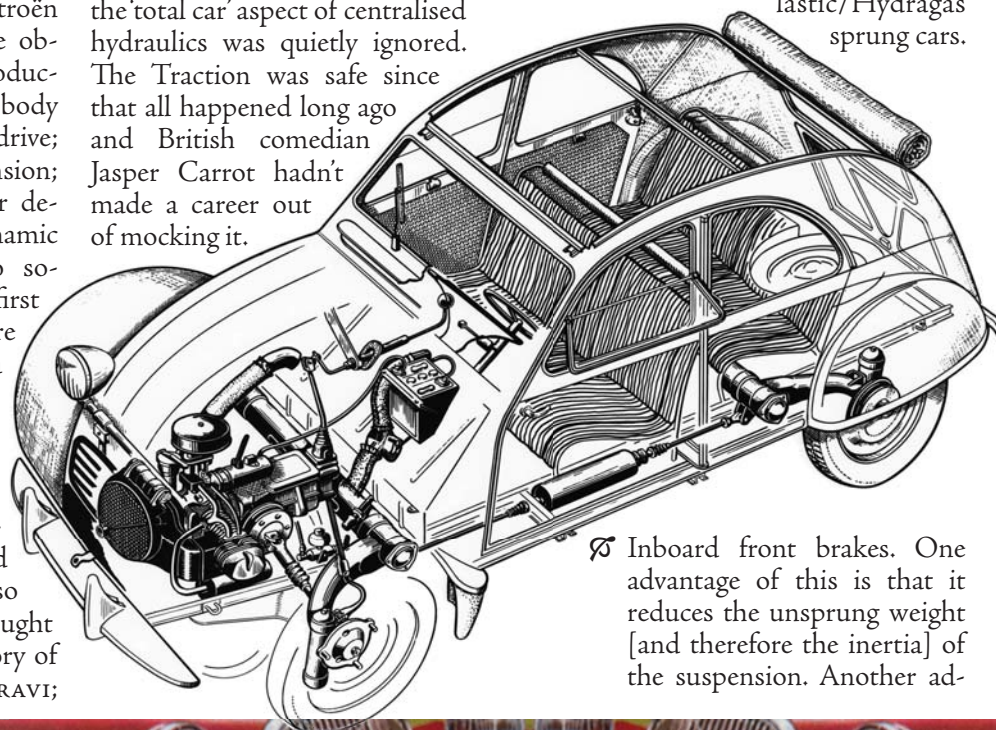
ruled out the A Series cars. In a way, this was understandable. Citroën UK has long been ambivalent about the 2CV and its siblings; regarding it rather as one might an uncouth and provincial relative at a high society family gathering; a bit of an embarrassment.

The DS was okay although the 'total car' aspect of centralised hydraulics was quietly ignored. The Traction was safe since that all happened long ago and British comedian Jasper Carrot hadn't made a career out of mocking it.

ing to look at some of the other technologies that the company employed, only to subsequently abandon as a result of Peugeot's enforced 'banalisation' of the marque.

In 2007, I was employed as a consultant for Citroën UK's 'Different Is Everything' marketing campaign and I was asked to come up with a list of 'Citroën Firsts'. The list covered the obvious ~ the first mass production car to feature unitary body construction; front wheel drive; independent front suspension; torsion bar suspension; car designed according to aerodynamic principles [as opposed to so-called 'streamlining']; the first car to feature a high pressure hydraulic system offering a 'total car' solution that operated an infinitely variable rate, self-levelling suspension; fully powered steering; fully powered brakes; powered operation of clutch and gearchange, etc. My list also included 'firsts' which I thought were important in the history of the automobile such as DIRAVI;

ABANDONED TECHNOLOGIES



So, let's start with the A Series. My list comprised:

⌘ Front to rear interconnected suspension. The great advantage of this is that the front wheel movement is transferred to the rear wheel ~ an upward movement as the front wheel encounters a bump results in the rear wheel being provided with more travel and the result is a very smooth ride. The specifics of this system [a single, horizontally mounted coil spring] was not adopted by any other manufacturer but the front to rear interconnection concept was adopted by BMC [later BLMC and then BL] in their range of Hydro-elastic/Hydragas sprung cars.

vantage is that this allows centre point/zero-offset steering whereby the pivot point of the steering [the vertical axis around which the front wheel rotates] runs through the centre of the tyre's contact point with the road. This leads to very precise and accurate steering and furthermore, ensures that in the event of a front tyre blow out, the car remains on course and can be steered and braked to safety. Inboard brakes were not confined to the A Series of course. The D Series, SM, GS and GSA all made use of them. However, with the introduction of transverse engines, [from the CX on], there was insufficient room for inboard brakes or for centre point steering.

⌘ Front suspension geometry whereby the wheel leans over therefore ensuring that when body roll kicks in, the wheel remains perpendicular to the road surface.

⌘ Anti-dive front suspension geometry whereby the lower pivot point is mounted forward of the perpendicular ~ under heavy braking, the car body is forced upwards. This geometry was used in all models up to those fitted with MacPherson struts.

⌘ Parking brake operating on the front wheels ~ this has the great advantage that it can be used as a very effective emergency brake. The

⌘ Inboard front brakes. One advantage of this is that it reduces the unsprung weight [and therefore the inertia] of the suspension. Another ad-

disadvantage, when coupled with disc as opposed to drum brakes was the risk that the car would roll away if the brake was not firmly applied when parked on an incline. This was caused by the discs

I then turned to the D Series and the list included:

✂ Centre-lock road wheels ~ I would imagine that these were abandoned since many tyre outlets did not have the appropriate machinery to al-

low them to balance the wheels.

✂ Single-spoke steering wheel

~ this was effectively killed off by the need to fit an airbag in the steering wheel. [Although with the new C4 Cactus the airbags are fitted into the ceiling of the car. Maybe the single spoke steering wheel could make a come-back. Ed.]

✂ Swivelling headlamps ~ discontinued and then subsequently reintroduced after

the competition re-invented them.

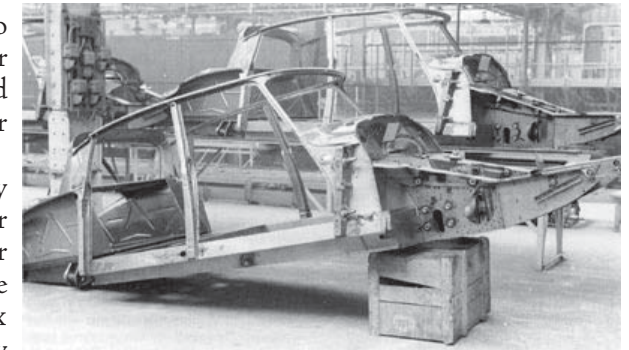
✂ High level rear indicators ~ this item was retained by Citroën UK ~ somehow the marketers made a connection between them and the boomerang rear light cluster of the C6 ~ they were both 'unusual': never mind that the D's lights were far more visible than indicators mounted in a lower and more conventional location.

✂ Removable panels bolted to a skeleton frame. British car manufacturer Rover adopted this type of construction for its P6 model in 1963.

✂ Lightweight 'plastic' body panels ~ initially used for the roof in the Ds and later used on the Méhari [for the entire body] and AX and BX to reduce weight and thereby improve performance and economy. Again, it is likely that safety regulations bore a large part in the death of this idea ~ although current cars do use plastics for some body panels such as bumpers and grills.

✂ Centralised hydraulics ~ as mentioned above, this was a 'total car' solution; elements of which were abandoned, starting with the steering in the BX and subsequent models and then moving to the brakes. In Citroën marketing speak, this is a 'decentralised' system when it is confined

to the suspension. From a purely economics perspective, it makes sense to build cars from a common parts bin. At the time, Citroën claimed that there were concerns about powering the brakes off a central high pressure hydraulic system should the engine die. This is, of course, complete nonsense since the brakes have their own accumulator which provides power for the



brakes in such circumstances and once that reserve is exhausted, the suspension pressure can be used.

✂ Mineral-based hydraulic fluid ~ far superior to conventional brake fluid which is intensely hygroscopic.

✂ Articulating union [D rear brakes]^[2]. This was developed at a time when conventional flexible tubing could not withstand the very high pressures used in the Citroën hydraulic system. A swivel was mounted on the rear suspension arm in line with the middle of the suspension arm bearings

ABANDONED TECHNOLOGIES

cooling and contracting.

✂ Yoder hinge ~ used for the 2CV bonnet, rear doors and bootlid. The Yoder hinge was also used on 2CVs fitted with 'suicide' front doors and on the H Van. I suspect that increasingly stringent safety regulations were responsible for the demise of this invention.



ABANDONED TECHNOLOGIES

so that it could rotate with the arm in the bearings. The output half of the swivel was fixed to the suspension arm and moved with it while the input side had an arm which was anchored to the chassis,

the outer housing, which prevented the fluid from leaking. The inner housing had a hollow centre and a hole from the shallow groove into this allowed the fluid through. The inner housing had the output pipe attached through the side of it and the fluid can therefore

keeping that side stationary in relation to the chassis. The input side was of a larger diameter and fitted over the end of the output side with o ring seals between them and a dust seal over the join. An aluminium cap finished off the outer end and kept dirt away from there. When the brake is

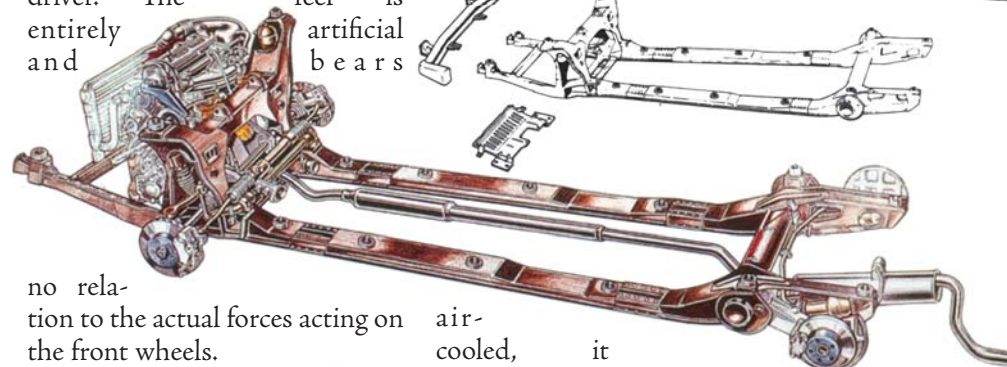
applied, fluid enters the pipe through the outer housing into the space between the outer and inner housings. There is a shallow groove in the inner housing that creates this space and an o ring on either side of this groove, mounted in their own grooves in

flow straight into the pipe and thence to the brake cylinder.

Moving on from the DS, the SM introduced the world to DIRAVI which is an acronym for 'Direction à rappel asservi' [steering with power assisted return] which was marketed as VariPower in the UK and SpeedFeel in the USA. This was a fully hydraulic 'steer by wire' system with no direct mechanical connection between the steering column and the steering rack during normal operation although a mechanical connection would be established in the event of a loss of hydraulic pressure. It provides automatic return to the straight ahead position whenever the engine is running. The centring force varies in relation to both vehicle speed and steering wheel deflection. The system requires minimal physical exertion and is a delight to use once one has got used to it. It allows for very high ratio [and therefore fast] operation with only two turns from lock to lock in the SM [2.5 in the CX and 3 in some left hand drive V6 XMs]. Front tyre blowouts, potholes,

and other road surface irregularities cannot affect the steering since the direction of the steered wheels can only be changed by steering wheel input.

Probably the reason for abandoning DIRAVI was that it took time to become acclimatised to it since there is no feedback to the driver. The feel is entirely artificial and

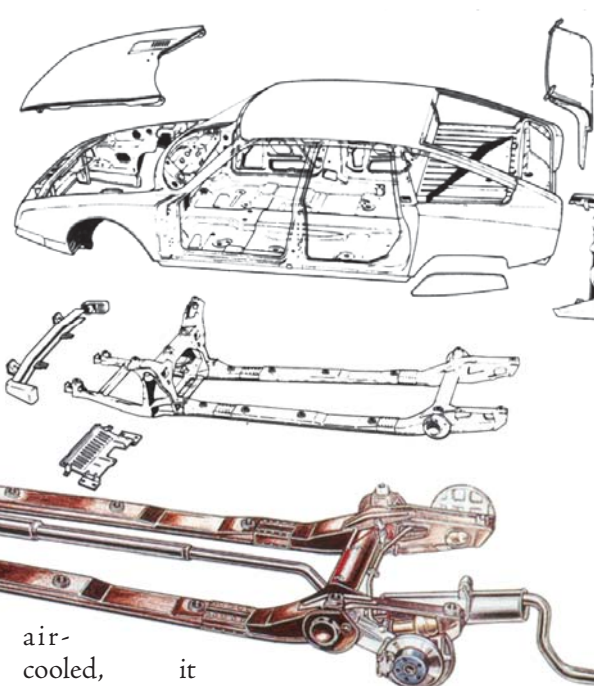


no relation to the actual forces acting on the front wheels.

DIRAVI was fitted to the SM, most CXs and some XMs and was also fitted to the SM's Italian stablemates, the Maserati Quattroporte II and Khamsin.

The CX was fitted with a hybrid chassis/body arrangement whereby the front and rear subframes were connected and the bodyshell was mounted on noise and shock-absorbing mountings.

Over the years, Citroën experimented with alternative engine configurations, starting with the horizontally-opposed twin cylinder that powered the A Series. A horizontally opposed six cylinder was proposed for the D Series but was too thirsty. A four cylinder unit was developed for the GS, GSA and Ami Super but this suffered from noise since, being



air-cooled, it lacked the sound damping effects of a water jacket and relative lack of power. It was also thirsty. My C6 V6 diesel returns better fuel consumption than my 1,015cc GSX managed.

Citroën co-developed the Wankel rotary engine with NSU but as was all too often the case with Citroën, there were insufficient funds to develop the concept and overcome its shortcomings of excessive fuel consumption and emissions, not to mention the rotor tip wear problems. Mazda who stuck with the idea have been successful but the vast majority of their cars use conventional engines.

PRN [Pluie = Rain, Route = Road, Nuit = Night] satellites were first seen in production in

the CX although they were first proposed by Michel Harmand in the stillborn Projet F in the nineteen sixties. Early versions of the Visa, the GSA [although on early UK versions of this car, the old GS set up was used] and Oltcit Axel

A commonly used styling motif was half-faired rear wheels; first seen on the 2CV and then on all subsequent models until the LN. This conveys an aerodynamic advantage since the turbulence caused by the rotation of the wheels is reduced.

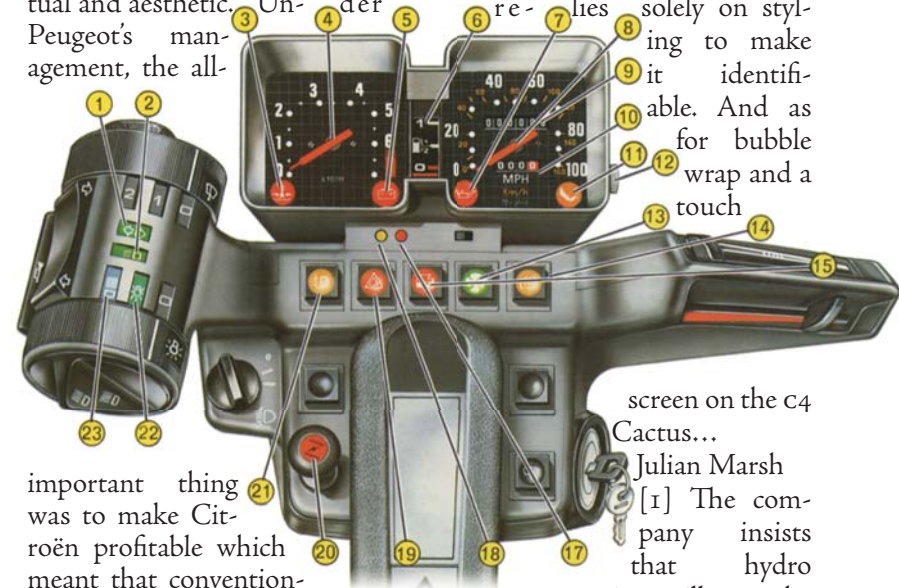
Many of the technologies

and early versions of the BX used this highly ergonomic answer to the proliferation of switches and stalks that required twisting, pushing and pulling that were fitted to the majority of other manufacturers' cars. All the controls were logically grouped around the steering wheel thereby allowing their operation without having to remove one's hands from the wheel. Notwithstanding their superior ergonomics, a conservative clientele preferred a more conventional set up and modern Citroëns are fitted with the by now traditional stalks.

invented or adapted or adopted by Citroën have become mainstream but a much larger number have been abandoned. Sometimes this is due to legislation and sometimes it has been a matter of cost. Sometimes however, I suspect that Peugeot has philosophical objections ~ especially when the Citroën solution is easier and cheaper to implement than the conventional alternative and proves to be more effective. It seems to me that Peugeot wishes to sell to the lowest common denominator ~ those people who would never dare to have consid-

ered something so outré as a DS or 2CV. Citroëns used to appeal to buyers on a number of different levels ~ philosophical, intellectual and aesthetic. Under Peugeot's management, the all-

rent C5 uses styling in an attempt to be similar to the Teutonic competition. The DS range [soon to be a marque in its own right] relies solely on styling to make it identifiable. And as for bubble wrap and a touch



screen on the C4 Cactus...

important thing was to make Citroën profitable which meant that conventionally engineered cars at bargain basement prices became the norm.

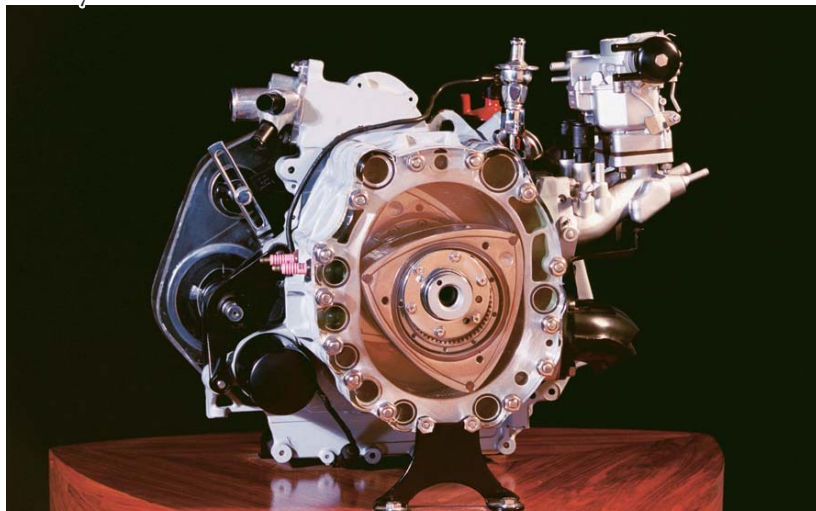
Recently, there has been a shift away from this paradigm but [with the exception of the C6], the appeal seems restricted to aesthetics. Citroën used to make cars which were mechanically and conceptually different from those built by other manufacturers. Modern Citroëns are, for the most part, mechanically and conceptually conventional and, just like the competition, use electronics and styling in an attempt to be different. However, the cur-

pneumatics will not be abandoned. Time will tell.

[2] Special thanks to Darrin Brownhill for the explanation and pictures.

This article, by Julian Marsh was written for 'The Citroënian', the magazine of the Citroën Car Club of the UK. It first appeared in the September edition of that magazine.

Different is everything.
André Citroën



ABANDONED TECHNOLOGIES

LEIGH MILES ~ EDITOR

Some months ago we took our Visa GTi to Swedish Prestige to be fettled and returned to tip top condition. I have to admit that I could not remember when it had been driven

last, but when we did take it out for a run it was clearly not in a suitable condition to be driven.

So, down it went. As always with a car such as this, when you have a fleet such as ours, there was no hurry for the return of the car. I was glad of that as it was with Swedish for almost

two months. But, when it was returned ~ what a change they had wrought.

New tyres were fitted ~ well the ones on the car had been fitted in about 2001, so despite having a good deal of tread, they were rather on the hard side, with a consequent lack of grip. The brakes were freed up ~ the permanently on brakes probably accounted for the fact that no matter what I did I could not get the car above about 70kph. A new filler pipe for the petrol ~ so there should not be the problem of petrol pouring out the pipe during filling... and at other times. Timing belt change ~ again the one that was on the car was fitted during CitIn in Mudgie, shortly after I bought the car. CitIn Mudgie... that was about... no I cannot remember; but I am sure one of our NSW members will be able to pin-point exactly when it was.

Despite all of this work, when we collected the car they told they had not needed the workshop manual which had delivered with the car.

The final bill was a four-figure number, but with all that was done, I was neither surprised nor all that shocked.

We collected the GTi and dropped off the two-cylinder Visa. On the basis of the experience with the GTi, Glen at Swedish was happy to return the workshop manual as well. When I explained that the Club is powered by a horizontally-opposed twin cylinder of just 652cc...he decided that they would keep the manual for a bit longer.

Next on the list is the Visa Cabriolet.

Philip's niece was married last month and we were quite chuffed to be asked to supply the wedding cars for the day. I think before I arrived on the scene Philip's brother would barely have been able to recognise a Citroën... actually, before I came into Philip's life, he probably would not have recognised a Citroën either. Anyway that recent realisation of the delights of a hydropneumatic Citroën made being asked to provide two Citroën's for the wedding especially pleasing. Philip drove the bride and her parents in the c6 and I drove the gaggle of bridesmaids in the c5.

Members with a memory will recall Bill Schenk's article in 'Front Drive' about using his Big 6 as a wedding car. Thankfully, our day bore little relationship to Bill's experiences.

Leigh F Miles



MAX LEWIS ~ PRESIDENT

You would have by now heard that I have a 'new' car. It is a 1954 Citroën Big 15, big boot and it is the formerly one owned by Jeff Pamplin.

I had known of its history and that it had passed into the ownership of Kay Attali. Through my worthy friend, mentor and go between, Rob Little, I asked if it was for sale. Indeed it was and would I like to make an offer. Which I did and lo and behold it was accepted and within a few days the car was ours... all bar the legal bits.

The Big 15 has a spacious interior which for me was a necessity but really I just love the whole concept of a larger Traction over the Legere/Light 15. Our previous Traction if you recall was the replica roadster out of Vietnam... that was based on a Normale body and was just a good size.

Eloise [as we named the Big 15] was garaged in Mitta Mitta under the gaze of Mt Bogong so a trip with a trailer was deemed necessary as the car couldn't be started. Something to do with the fuel feed from the tank to the carbie. My very best and oldest standing friend Greg from Launceston [we have known each other since school days way back in the early '50s] said he would like to come along and lend a hand.

I hired the best tandem trailer from my very favourite

FLEET FOLLIES



trailer hire place, had it checked out by the proprietor who was concerned that he may have to come to somewhere in the Alps to rescue me if something went wrong. A very thorough inspection. Hitched up to Buster my

sistance from my other near neighbour David Moffatt, we got the car off the trailer and backed into the car port with Roz steering. You all know what an effort that is to steer a Traction and that was over gravel ~ worse still.

So Rob, I will take one of your electric power assisted steering

Mitsubishi Triton [can't kill it with an axe... it is so strong and super reliable... touch wood here!] with the trailer which I might add was as steady as a rock unladen and with Eloise. One hundred kph on the Hume was the max and all I had to complain about was the fuel consumption... about double over that in normal day to day running about Melbourne.

We couldn't get Eloise running despite all the work so it went on the trailer. Greg and I stayed overnight with Kay's son and his family and that was a bonus.

The trip home was a doddle but I was so concerned with the way things were going, I forget to take up Rob Little's invitation to pop in as he thought he could have pinpointed the fuel problem and fix it. Sorry Rob but if you want to come on down, I may have a few little quirks you might like to fix.

Getting the car and trailer up the lane at home was a struggle but with the best directions from Andrew Switala and further as-

units as soon as you've got one available.

The fuel problem was finally fixed with the help of Peter Boyle. I won't take it too far on the road once the VicRoads thing is settled as the car only has semaphores. Jeff never got around to fitting a proper indication system so Peter Boyle has got a auto sparkie lined up to combine the semaphores with a blinking system.

Gricey suggested that LEDs in the parking lights with an orange filament globe will take care of the front while the rear gets a set of lights that remarkably resembles the brassier that Madonna wore all those years back.

No we aren't going to rename Eloise so the madonna lights will be just that... lights. Again I must thank Lance Wearne, our very capable and friendly parts man for his assistance.

I am also replacing the perished rubbers from the rear brake lights. The existing lens is the original Lucas one with the embossed Citroën chevrons but over the years the colour has faded

and the inside has been hand painted. There is no way I am going to fiddle about with these beautiful items so I will repaint them as well.

Once we got Eloise fired up which really took no great effort, the engine sounded sweet as a nut. Even Roz thinks it's a great sound. Very smoky but that's what happens when you don't run the engine for a while.

Peter has inspected the car and has passed it and now for a second visit to VicRoads to get legal. If you saw me and Eloise at the French Car Festival, it means I must have pulled out my finger

otherwise you will have to wait another day. I just think the Big 15 with its groovy green paint and time worn interior and the shape of the car is cosmic.

I often talk to Eloise and fondly caress her rounded bits... ok, yes I am a bit over the top [and have reserved a place at the funny farm just in case] but look, I have a beautiful car.

My neighbour, Craig, who is a lover and devotee of all things refined and graceful thinks it is just beautiful.

So I'm happy and I'm not the only one who gushes!!

Max Lewis

✂

FOR SALE

1952 LIGHT 15

Excellent condition 'could be brought to concours condition with not much work. Contact Denton Christie [02] 4731 6522 for all the technical detail and advice as to value. This car was once the property of Dick Thornett [dec. 2011] who was one of five Australians to represent their



country in three sports ~ rugby union, rugby league and water polo. The car was well-known outside the famous Dolphin Hotel in Surry Hills ~the pub being owned by Thornett. Reg: BAH21F. \$25,000. Contact Ken Barnes 04 1247 5060 or kenneth.robert.barnes@gmail.com [38/04]

2002 VW Golf CONVERTIBLE

2litre petrol 5-speed manual. 2 careful owners, always garaged, spotless condition, service records from vw specialist. 12months reg [RRB 756], good tyres, usual vw quality and features, electric roof, tow bar, 150,000kms, seats 4 in comfort and spring is almost here so on a sunny day, why not go driving topless in this snazzy silver convertible? \$7,000. Contact Warwick Spinaze, Tootgarook, Vic 04 0701 6719. [38/03]

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Fleet Follies

Club Citroën South Australia inc.
Easter 3-6 April 2015

Club Citroën South Australia Offers a warm invitation to CITIN 2015, the 47th gathering of combined Australian Citroën Car Clubs. In particular we will be celebrating 60 years of the déesse making it a real Diamond Anniversary event.

It will be held at Nuriootpa, Barossa Valley just one hour's drive north east of Adelaide.

The name Nuriootpa

is derived from an Aboriginal word meaning 'the meeting place' as large numbers of Aboriginal people once gathered here to trade.

With the wonderful Autumn Mediterranean climate Nuriootpa offers a great 'meeting place' for the CITIN long weekend.

The Barossa is often regarded as Australia's most famous wine region, possessing a refined food and wine culture reflected in some 70 wineries, 40 restaurants and cafes with an abundance seasonal produce.

Some 20 townships and villages make up the region's rich history and architecture with heritage and winery trails and natural bush walks.

Within an easy drive there is the National Motor Museum at Birdwood, the Aviation Museum at Greenock, then there's always Maggie

Beer's. Or you can do something completely different, like early morning hot air ballooning, an absolute must over the serenely breathtaking landscape.

A post CITIN run is planned to the Flinders Ranges, contact Liz Pike to register your interest. CITIN HUB

Our CitIn Hub will be based at the Vine Inn, 14-22 Murray Street.

ACCOMMODATION

We have reserved all the accommodation at both the Vine Inn and Vine Court but this will only be held until 6 February 2015

When making an accommodation reservation please advise the management you are a registrant to the Easter CITIN.

✧ The Vine Inn and Vine Court
14-22 Murray St., Nuriootpa
Phone: [08] 8562 2133
Fax: [08] 8562 3236
Email: functions@vineinn.com.au
Website: www.vineinn.com.au

✧ The Barossa Valley Tourist Park
Penrice Road, Nuriootpa
Phone: [08] 8562 1404
Fax: [08] 8562 2615
Email: info@barossatouristpark.com.au
Website: www.barossatouristpark.com.au

ALTERNATIVE ACCOMMODATION

A range of alternative accommodation is available through The Barossa Visitor Centre. 1300 852 982

www.barossa.com. Download the free Connect Barossa smart phone app.

REGISTRATION

1 Sept to 31 Dec '14	\$189pp
1 to 31 January '15	\$209pp
1 Feb to 1 Mar '15	\$229pp
Children under 12:	\$60.00.
Children under 5:	Free.

PROGRAM

✧ Friday 3 April
3:00-6:30pm: Registration
7:00pm Welcome Meal at Vine Inn

✧ Saturday 4 April
Show and Shine
Lunch & Observation Run
Dinner and Entertainment

✧ Sunday 5 April
Morning Church Service
Easter Egg Hunt
Lunch
Motorkhana
Formal Dinner with guest speaker, presentations & prizes
CITIN 2016 Launch

✧ Monday 6 April
Breakfast and Farewell

HOW FAR IS NURIOOTPA?

Distance to Nuriootpa [km]
Adelaide 69 Brisbane 1,927
Melbourne 743 Sydney 1,272
Canberra 1,069 Perth 3,108
Darwin 2,725

CONTACTS & FURTHER

INFORMATION

Visit the CitIn web site
www.cit-in.org
Email info@cit-in.org
Or contact the organizing committee:
Liz Pike [08] 8293 1800
04 0829 1800



CITROËN



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