

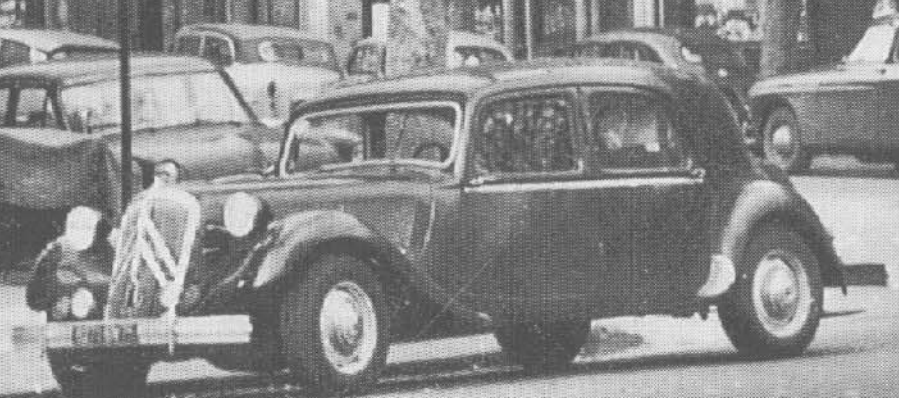
# FRONT DRIVE



AUSTRALIA'S NATIONAL MAGAZINE  
FOR CITROËN OWNERS AND ENTHUSIASTS



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



MARCH / APRIL '07 Vol 30 No 8

**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.

The views expressed in this publication are not necessarily those of CCOCA or its Committee. Neither CCOCA, nor its Committee can accept any responsibility for any mechanical advice printed in, or adopted from this publication.

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.

**COVER IMAGE**

The cover image is taken from the Traction Avant Nederland calendar and depicts Avenue de Villiers, Paris XVII.

**MEMBERSHIP**

Annual Membership is \$45. For overseas membership add \$12.

**MEETINGS**

Club meetings are held on the fourth Wednesday of every month [except December] at 8pm. The venue is the Canterbury Sports Ground Pavilion, cnr Chatham and Guildford Rds, Canterbury, Victoria. Melway Ref 46, F10.

**LIFE MEMBERS**

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

Peter Boyle	2003
Jack Weaver	1991
Nance Clark	1984

**CONTRIBUTORS**

Contributors to this edition of 'Front Drive' include:  
Roger Brundle, Andrea Fisher, Rob Little and Andrew McDougall

**DEADLINE**

The deadline for the next edition of 'Front Drive' is Friday, March 30

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**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.

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

CH permit applications must be accompanied by a RWC. 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 going.

**FOR SPARE PARTS & TOOLS**

Contact Rob Little. Phone: [03] 5823 1397 spareparts@citroenclassic.org.au [Please do it at a reasonable hour.]

**CLUB SHOP**

For Citroën models, memorabilia and other items contact Graham Barton on [03] 5987 0767 or clubshop@citroenclassic.org.au

**OTHER CLUBS?**

VIC: www.citcarclubvic.org.au  
NSW: www.citroencarclub.org.au/  
WA: www.citroen.aconline.com.au  
QLD: www.citroenclub.org  
www.doublechevrons.aunz.com



**OK**, there was a bit of a stuff-up last edition. Some of you will have received a proxy/nomination form that was unreadable. And


**ED SED**

those of you who should have received two copies of the form only received one. So, this edition of 'Front Drive' comes with new forms. Determining, when we are stuffing the magazine for postage, who needs two and who needs only one form is difficult. As a result, everyone has been sent two copies – please only use the two if you are so entitled as joint members.

As both the President and Spare Parts Officers have said, the AGM is an important event in the Club programme. So, please make the effort to either attend on March 28, or to complete a proxy from if you cannot be with us.

This edition also contains a booking form for, and information about, Oz-Traction in Portland. While bookings for the event do not close until May, you must secure your accommodation at the William Dutton Motel by April 30. Remember to say you are with the Citroën Classic Owners Club when you make your booking. After April 30, we cannot guarantee you a room at this venue.

This month we conclude Andrew and Frances McDougall's world motoring journey: Finland, the UK

ED SED PAGE 4

PREZ SEZ PAGE 5

A-TRACTIONS PAGE 6


**CONTENTS**

CITROËN NEWS PAGE 14

MOTORING WORLD PAGE 19

FRENCH CAR FESTIVAL  
PAGE 30

TORQUE STEER PAGE 34

PRODUCT TEST: LOCTITE  
PAGE 39

SPARE NEWS? PAGE 41

CLASSIFIED ADS PAGE 42

and China.

Some interesting technical material regarding torque steer and a test of some Loctite products, that may be of use, and will certainly be of interest, to most members.

Enjoy,  
Leigh F Miles – Editor



**Y**esterday [at the time of writing this] the French Car Festival finally came together after six months of hard work and planning. Thanks to Ian for all his help, and to the club members who assisted on the day. Turnout

of participants and general public was good despite the challenges with the weather; the MC, Pinky, added to the carnival atmosphere; I believe it was a successful event. Since CCOCA is in a comfortable financial position, it was decided to donate all profits from the event, \$710, to the Royal Flying Doctor Service.

Now to the future – the AGM on 28 March. This meeting will be a decisive point in CCOCA's history, due to the large number of jobs being left vacant. Of course, all positions are open to nominations, but those listed below are being vacated by the current incumbent. So far no-one has expressed interest in nominating for any of them.

Executive Committee positions:

- President
- Secretary
- Activities Officer
- In addition, an extra Committee Person or two who can assist with extra duties and make up numbers for committee meeting quorum would be an invaluable assistance.

Other existing club commitments:

- 2007 Citroën Concours – ideally a committee of at least four people.

- French Car Festival support committee – at least one representative to this standing committee, which meets every two or three months, to return the favour of the help we received from the other three clubs in running our event.

- 2008 Cit-In – After this past year I feel I must scale back on my commitments, and would appreciate some more offers of help with this event.

CCOCA provides a wide range of support to assist members to keep their Classic Citroens in good condition; it has been able to do this over the years because of the work of members who believed these services are valuable and worthwhile. If you feel that the need for these services still exists, I invite you to consider how they could continue to be provided if the above positions are not filled. CCOCA has been a strong dynamic club, and I urge you to assist in continuing this tradition.

Andrea Fisher



**PREZ SEZ**

Please note: if no bookings have been received for an Event, by the booking deadline the Event will be automatically cancelled.

## A-TRACTIONS

### ● MARCH

#### AOMC BRITISH & EUROPEAN DAY

WHEN: Sunday, March 4

TIME: Display cars from 8:30am  
Spectators from 10:00am

WHERE: Flemington Racecourse,  
entry from Epsom Rd.

COST: Display car, \$15 inc  
occupants. Spectators, Adults \$15

BOOKING: Preferred by March 1  
if you intend to display

CONTACT: Leigh Miles,  
[03] 9888 7506,

editor@citraenclassic.org.au  
AOMC,

www.aomc.asn.au/B&Eshow07.htm



This year the featured marque is Vauxhall. You can download a booking form and pre-pay to ensure speedy entry on the day. Come along and show your car and help make the Citroën display the best ever!

#### DAY RUN – BUDA HISTORIC HOME & CASTLEMAINE LUNCH

Please note the change of date due to the AOMC British & European Day. This event will now run on Sunday, April 29.

#### NATIONAL STEAMFEST

WHEN: Saturday 10 to  
Monday, 12 March

TIME: From 10:00am each day

WHERE: National  
Steam Centre, 1200 Ferntree Gully Rd., Scoresby. Melway 72, D9

COST: Adults \$10,  
children \$5, family \$20

BOOKING: Not required

BRING: Lunch, rug, chairs, sunscreen

CONTACT: Leigh Miles,  
[03] 9888 7506 [H],  
editor@citraenclassic.org.au



Steam rollers, steam traction engines, portable steam engines, stationary steam engines... working examples from the 1890s and beyond. Blacksmith's shop, with working steam hammer. This is one of the finest collections of steam and diesel machinery in the country and on the Labour Day long weekend if it runs, it'll be running this weekend.

The kids [big and small] amongst us will enjoy a ride on the 12" miniature railway too.

#### DAY RUN – CANONS CREEK

WHEN: Sunday, March 25

TIME: 11:30am

FROM: Brandon Park

Shopping Centre, near Video Ezy,  
Springvale Rd., Wheelers Hill.

TO: Bernie & Clare Hadaway's

property at Canons Creek

COST: Free

BRING: Food for the BBQ,  
salad, refreshments, chair, sunscreen

BOOKING: Essential, by March 22

CONTACT: Bernie & Clare Hadaway,  
[03] 9598 6888

treasurer@citraenclassic.org.au

Discover your Victoria!

What would you consider to be a good day out?

- Walking in the lovely Australian countryside observing flora and fauna and tranquil waters

- Perhaps playing boules

- Fishing, although the tide will be low it is the time for the camera to click and you get a shot of a lifetime

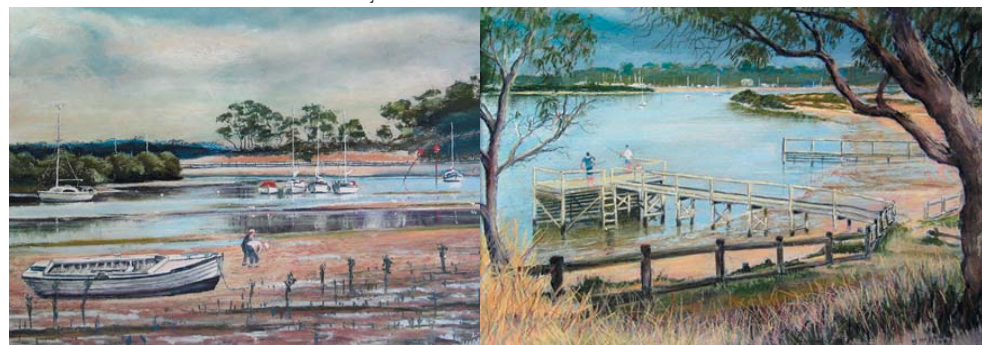
- Sitting under a tree communing with nature or

- Scintillating conversation with like-minded Citroënists

- Failing all of these you can knit!

You can have any or all of these if you come to the day run to Bernard and Clare's property at Canons Creek on 25 March 2007.

Bring your car, yourselves and your food needs and comforts for the day





we can supply water for a cuppa. While BBQ facilities will be available, if it is a Total Fire Ban the BBQ will not be lit. Some of you have been there before and so will enjoy it again, others who

## A-TRACTIONS

have not yet 'discovered' Cannons Creek are in for a great delight. Look forward to seeing you.

## ANNUAL GENERAL MEETING

WHEN: Wednesday, March 28  
TIME: 8:00pm  
WHERE: Canterbury Sports Ground Pavilion, cnr Chatham & Guildford Rds., Canterbury  
COST: Free  
BOOKING: Not required  
CONTACT: Leigh Miles, [03] 9888 7506, activities@citroenclassic.org.au

Yes, it is that time of the year again—the Annual General Meeting is rolling around again in March. Wednesday, March 28, to be precise.

Every year the Committee exhorts you come along to this important event, and every year we manage to have sufficient members attend to



assure us a quorum. Remember, if we do not get a quorum, we simply have to go through the whole thing again. So, please make the effort to come along.

## VOLUNTEER!

Have you thought of standing for Committee? All Committee positions are 'up for grabs'. So, complete the nomination form that has been included with this edition of 'Front Drive' and return it to the Secretary at PO Box 52, Balwyn, 3103. Remember, this is the only edition of 'Front Drive' that will include this form.

## VOTE!

Voting for next year's Committee is a very important right you have as a member of C C O C A. So, come along and make sure

you have your input. If you will not be able to attend on the night, be sure to submit your proxy form, which has also been included with this edition of the magazine.



## ● APRIL

## AOMC AMERICAN MOTORING SHOW

*Don't be an April Fool  
come to the...*

## American Motoring Show

Sunday 1st April 2007

WHEN: Sunday, April 1  
TIME: Display cars from 8:30am  
Spectators from 10:00am  
WHERE: Flemington Racecourse, entry from Epsom Rd.  
COST: Display car, \$15 inc occupants. Spectators, Adults \$15  
CONTACT: AOMC, www.aomc.asn.au/B&Eshow07.htm

## CIT-IN '07: MANSFIELD

WHEN: Friday, April 6 to Monday, April 9  
WHERE: Mansfield, in Victoria's High Country  
COST: \$175pp  
BOOKING: Essential by February 1  
CONTACT: CCCV Inc., PO Box 48, East Melbourne, Vic., 3002  
Cit-In Coordinator: Kirk Kirkcaldy, [03] 9363 2464, akirkcau@bigpond.net.au

The first national Easter rally was held in Adelong NSW in 1969 and later became known as "The Cit-In". This annual event has become a

focal point for members of Citroën clubs and enthusiasts throughout Australia and visitors from overseas. Not only has this event provided a venue to display older and future classics, it is a wonderful social occasion which, over the years, has allowed life-long friendships to be formed.

## WELCOME TO VICTORIA IN 2007

We've chosen a wonderful location in Mansfield, the gateway to the Victorian Alps. Whether you're a died-in-the-wool enthusiast or a first time Cit-In participant you'll have a ball at the Easter rally. The friendly folk in beautiful Mansfield are giving us terrific support and you can be assured of a memorable stay. An event not to be missed. Looking forward to seeing you.

## EASTER IN MANSFIELD

The recreation hall in Highett St. will be the nerve centre of the Cit-In and



CCCV

registrations will be taken at that venue. The display of vehicles will be on Saturday 7 April on the oval near the Botanic Park and, on the same day, Mansfield hosts its

## A-TRACTIONS

popular Easter Bush Market in the main street. The agricultural festival Agfest is also held on this weekend at the show grounds. The town will be a-buzz!

Around town there is horse-riding, trout fishing, cycling, golf and scenic drives to places of interest including local wineries, the Mansfield Zoo, Bonnie Doon on Lake Eildon as well as some of the best scenery in the country.

Mt. Buller's annual Easter Art Show is just a 50km drive from Mansfield and a sightseeing chairlift also operates on the mountain. Watch for the Mansfield Balloon Festival in early April if you are planning a holiday before the Cit-In.

A variety of activities [including a few surprises] has been planned. We look forward to your company for a fabulous Easter Cit-In in the picturesque surrounds of Mansfield.

### ARE WE THERE YET?

Not quite.

Clutching our GPS and looking earnest we suggest the following routes....

From the North: Down the Hume

with a sharp left at the Midland Hwy at Benalla. Try to avoid the many wineries as registrations will close sooner than you think.

or... for the more adventurous, down the coast on the Princes Hwy all the way down to Traralgon, then North through Rawson, Woods Point and Jamieson and on to Mansfield. Lots of dirt, lots of sheer drops.

From the South and West: Up the Hume, turning right at Tallarook, via Yea, Merton, Bonnie Doon [watch out for the Kerrigans] and then on to Mansfield.

From Melbourne: Plenty of ways, but we suggest Maroondah Hwy, through Yarra Glen and on to Yea. Just watch out for Mr Plod and his flashing friends.

For those for whom too much driving is never enough...

...and those with the inclination to meander around the eastern seaboard of this wide brown land, Craig & Debra Keller are organising a tour in the week before Easter finishing at the Mansfield CitIn. Watch postings on [www.aussiefrogs.com](http://www.aussiefrogs.com) for further details.

### REGISTRATION DETAILS

Applications received prior to 31 January 2007: \$165pp

1st February 2007 — 28 February 2007 [Deadline] \$175pp

Children 5 to 12 yrs half price [Under 5 yrs free]

### ACCOMMODATION MADE

#### SIMPLE

We have made searching for accommodation simple. The local tourist authority and central booking agency [High Country Reservations] will give you advice and arrange accommodation at no cost to you. A number of venues for Cit-In visitors have been reserved. Inform them you are with the Citroën rally and they'll find just the place for you. It's as easy as that!

High Country Reservations  
Phone [toll free]: 1800 039 049

### REGISTRATION MADE SIMPLE

Cit-In Registration forms will be available from all car clubs and on the CCCV website. For your convenience payments can be made by direct debit, by credit card or by cheque.

Citroën Car Club of Victoria Inc., PO Box 48, East Melbourne, Vic., 3002

Cit-In Coordinator:  
Kirk Kirkcaldy [03] 9363 2464  
[akirkcau@bigpond.net.au](mailto:akirkcau@bigpond.net.au)

CCCV Website: [www.citcarclubvic.org.au](http://www.citcarclubvic.org.au)  
Cit-In Website: [www.cit-in2007.info](http://www.cit-in2007.info)

### OUR SPONSORS

Our sponsors enable us to keep costs at a reasonable level – please support them in any way you can.

#### ATECO AUSTRALIA

The Australian Citroën distributor. Since taking over the distribution

of the Citroën marque in Australia, Ateco has been responsible for introducing the most exciting and varied range of cars our shores have ever seen. 2007 will see the launch of the C4 Picasso with further introductions to the range including the marvellous C6.

#### ZAGAME CITROËN

Melbourne's leading Citroën dealership with showrooms in Richmond and Brighton, plus state of the art service facilities in Abbotsford. The significant commitment of Zagame to our club movement must be acknowledged by all.

#### MICHELIN AUSTRALIA

Michelin tyres have been synonymous with Citroën cars since the early days. Similar to the vehicles we love, their product has been the leader in innovation and technological development since last century.

#### RACV

The Royal Automobile Club of Victoria is a big supporter of the car club movement. Today, RACV has many areas of involvement including car insurance and finance, travel, roadside assistance and representation to governments on behalf of the motoring public.

#### CARS OF FRANCE

Proprietor Nick Cascanis will give individual attention to your pride and joy. Whilst highly skilled on the older models, Nick has expertise and the equipment to service all your vehicles up to the latest models.

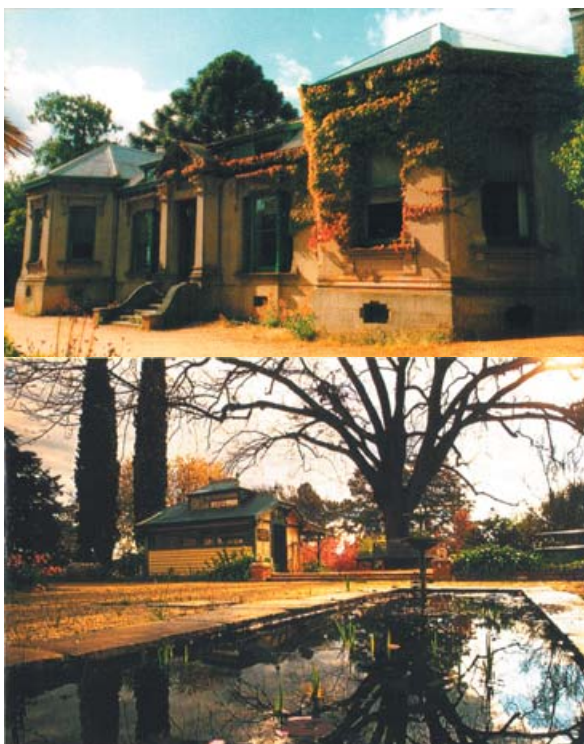


**MONTHLY MEETING**

WHEN: Wednesday, April 25  
 TIME: 8:00pm  
 WHERE: Canterbury Sports

**A-TRACTIONS**

Ground Pavilion, cnr Chatham  
 & Guildford Rds., Canterbury  
 COST: Free  
 BOOKING: Not required  
 CONTACT: Activities Coordinator,  
[activities@citroenclassic.org.au](mailto:activities@citroenclassic.org.au)

**DAY RUN – BUDA  
HISTORIC HOME &  
CASTLEMAINE LUNCH**

WHEN: Sunday, April 29  
 TIME: 9:30am  
 FROM: Melbourne Zoo  
 car park, opposite Royal Park  
 station. Melway 29, E11  
 TO: Buda historic house,  
 Castlemaine and BBQ lunch  
 at Roger Brundle and Faye Dunstan's  
 COST: Entry to Buda  
 BRING: Food for the BBQ,  
 salad, refreshments, chair  
 BOOKING: Essential, by April 25  
 CONTACT: Leigh Miles  
 [03] 9888 7506  
[editor@citroenclassic.org.au](mailto:editor@citroenclassic.org.au)

Buda was built in 1861 and from 1863 was the home of noted silversmith Ernest Leviny and his family. Complete with the family's art and craft collections, furnishings and domestic effects, and set in 1.2 hectares of enchanting gardens, Buda is a unique record of this creative family who occupied it for the period of 118 years and conveys the feeling of a living house and garden in an authentic way.

Included in the collection are examples of silverwork and jewellery designs by Ernest Leviny and artworks including embroidery, metalcraft, photography and woodwork by the five unmarried daughters who resided in the house most of their lives.

Also displayed are works by many prominent Australian artists including Margaret Preston, MJ McNally, Ursula Ridley Walker and Lionel Lindsay. Afterwards, we shall adjourn to

the home of club members Roger Brundle and Faye Dustan for a BBQ lunch.

**● MAY****CLEANSKINS  
WINE TASTING**

WHEN: Wednesday, May 16  
 TIME: 6:30pm  
 WHERE: Australian Cleanskins  
 Group, 85 Toorak Rd, between  
 Murphy and Avoca Sts  
 COST: Well, that depends on  
 what you buy, plus dinner  
 BOOKING: Essential by May 11  
 CONTACT: Leigh Miles  
 [03] 9888 7506 or  
[editor@citroenclassic.org.au](mailto:editor@citroenclassic.org.au)

Cleanskins can be excellent value, but not always! CCOCA's resident wine expert has pre-tasted from the huge range of wines available at Australian Cleanskins and chosen a selection of 'good value' wines for us to taste, and buy. With three reds, four whites and a 'sticky' or two Leigh has truly picked the eyes from the range. Members will all receive a 10% discount on the marked prices. Afterwards we are going for dinner at Piazza Novana – one of Toorak Rd's few remaining 'good value' BYO eating establishments..

**MONTHLY MEETING**

WHEN: Wednesday, May 23  
 TIME: 8:00pm  
 WHERE: Canterbury Sports  
 Ground Pavilion, cnr Chatham  
 & Guildford Rds., Canterbury  
 COST: Free  
 BOOKING: Not required  
 CONTACT: Activities Coordinator,  
[activities@citroenclassic.org.au](mailto:activities@citroenclassic.org.au)

**● JUNE  
OZ-TRACTION  
– PORTLAND**

WHEN: Friday, June 8 to  
 Monday, June 11  
 WHERE: Portland, Vic  
 BOOKING: Essential by May 11  
 Accommodation must be  
 booked by April 30  
 CONTACT: Leigh Miles  
 [03] 9888 7506  
[activities@citroenclassic.org.au](mailto:activities@citroenclassic.org.au)

Unfortunately, due to other commitments details of Oz-Traction are a little late this year. However, the flyer and booking form with this edition of 'Front Drive' contains all you need to know.

Remember, you MUST book your accommodation with the William Dutton Motel by April 30. Be sure to mention you are with the Citroën Classic Owners Club when you book. Talk to Graeme on [03] 5523 4222

Just weeks before the all-new Citroën C4 Picasso arrived on sale in Australia at the Melbourne International Motor Show in March, the French car maker

## CITROËN News

took the wraps of another new Citroën C4 Picasso!

Now called the 'Grand C4 Picasso', the original innovative seven seat C4 Picasso that was previewed at the Sydney Motor Show late last year is now complimented by new five-seat variant. The C4 Picasso has been restyled to provide it with a new assertive, dynamic look that provides the promise of driving pleasure and all the advantages of an MPV, such as leading cabin and boot space and a commanding driving position. This is along with the all-new features inherent to the C4 Picasso's visiospace concept: outstanding peripheral visibility and light, easy-to-use flexible design, uncluttered interior space, and the highest levels in onboard comfort.

Although the Grand C4 Picasso was the first Citroën people mover to arrive in Australia, the revealing of the five seat C4 Picasso is another demonstration of Citroën's wide ranging expertise in this market sector. In Europe Citroën's people movers range through from the Citroën Berlingo Multispace, through the original Xsara Picasso,

the two new C4 Picassos to the full size luxury of the Citroën C8 and the commodious space of the new Citroën Dispatch Combi.

'The Citroën C4 Picasso amply demonstrates the remarkable level of expertise that

Citroën has developed in the people mover sector,' says Miles Williams, General Manager for Citroën in Australia. 'The fact that there are now two versions of this unique car, each with their own dynamic and interesting characters, shows that Citroën recognizes that there are, within the people mover market sector, different needs and these two models are designed to meet them.'

Following the launch of the 'Grand C4 Picasso' at the Melbourne Motor Show in March, when prices and specifications will be announced, the new five seat C4 Picasso will be launched locally in early 2008.

### DYNAMIC, ATTRACTIVE STYLING

The styling of the C4 Picasso is distinguished by its original, dynamic lines. Its sophisticated body style is at once compact, flowing and elegant. Citroën's new MPV is an eminently attractive and dynamic vehicle from all angles.

The new visiospace's assertive-looking front end features a bumper with oversized air intakes covered in racing-style black mesh. Its wide

angle panoramic windscreen and large quarter-lights underline the new Citroën's visiospace identity. The rear pillars are masked by the rear quarter-lights, bringing extra flight to the roof and giving an uninterrupted all-glass look.

The protective waistline suggests robustness, while the wave-shaped recess adds rhythm to the styling of the sides at the rear and creates a flowing, graceful ensemble. The car's elegant profile is made more elegant still by the plunging roof line that extends into the spoiler.

The C4 Picasso sports a saloon-style rear end and rear lights with a horizontal design in the shape of hockey sticks, highlighting the stance and width of the vehicle and underscoring its dynamic personality.

Visiospace assets: exceptional vis-

ibility and generous interior space

The visiospace combines exceptional visibility ['visio'] with generous interior space ['space'].

The C4 Picasso offers:

- Outstanding visibility and light, a result of the wide angle panoramic windscreen, large front quarter-lights framed by slim pillars, and the [optional] panoramic sunroof.
- Segment-leading cabin space and boot volume, with from 500 litres VDA under the luggage cover, for normal boot use behind the seats in row 2, to maximum volume of 1,734 litres VDA from behind the front seats.
- A flat floor and three identical individual seats in row 2 to accommodate three passengers in equal comfort.
- Modular design that is quick and





easy to use. The three rear seats fold simply into the floor of the vehicle.

### REAL DRIVING PLEASURE

## CITROËN News

The C4 Picasso delivers all the driving pleasure suggested by its dynamic styling.

The vehicle is available from launch with four high-performance engines that are frugal on fuel and respect the environment:

- Petrol engines include the 127 bhp DIN 1.8i 16V unit mated to a manual 5-speed gearbox, along with the 143 bhp DIN 2.0i 16V with the 6-speed electronic gearbox system or – depending on the country – a 4-speed automatic.

- Two diesels, both fitted as standard with a particulate filter [DPFS], of which the 110 bhp HDi DPFS mated to a 5-speed manual gearbox or the 6-speed electronic gearbox system [EGS], and the 138 bhp HDi DPFS with

the 6-speed EGS or a 6-speed automatic gearbox.

Smooth and responsive, the 6-speed automatic gearbox, already available on the C4, C5 and C6, can be coupled to the 138 bhp HDi DPFS. This system is also fitted on the Grand C4 Picasso [7-seater]. As with the 6-speed electronic gearbox system, vehicles equipped with automatic gearboxes feature an innovative driver's station with all gearbox controls grouped on the steering wheel.

Fitted as standard, an automatic electronic parking brake and hill



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start assistance make everyday driving easier.

The C4 Picasso has impeccable roadholding in all driving situations.

## CITROËN News

Developed on the same platform as the Grand C4 Picasso [7-seater], which scored five stars in EuroNCAP tests, the C4 Picasso also meets the most stringent criteria on passenger protection in the event of impact. Among other safety features, it has seven airbags fitted as standard [including a driver knee airbag], an innovative reinforced structure, four Isofix seats, and buzzers for unbuckled seat belts on all seats.

Equipment for onboard comfort rarely found in this segment

The C4 Picasso is available with equipment for onboard comfort and well-being rarely found in this segment:

- Alongside conventional storage space, vehicles fitted with the 6-speed electronic gearbox system or an automatic gearbox are available with four large stowage compartments on the dashboard, including a large, central refrigerated compartment.

- The C4 Picasso's boot can also be equipped with a new Modubox, a removable trolley that makes it easier to divide boot space and transport

objects outside the vehicle.

- Suspension comfort is excellent, especially with the air suspension on the rear axle [available on all models apart from the 1.8i 16V petrol version].

- Laminated, acoustic side

windows [optional], a feature rare in this segment, and an acoustic windscreen [standard] provide the highest levels in acoustic comfort.

- The vehicle boasts useful night lighting features such as automatic side lights positioned under the rearview mirrors, a portable flash light in the boot and reading lights on the back of the front seats.

- Particular effort has been made to ensure a pleasant onboard atmosphere, with individual controls for air flow in the back seat and the option of a second air-conditioning unit [depending on the country], an air quality sensor and a scented air freshener.

- A complete stereo system and folding video screens in the front seat backs are also available.

Close attention has also been paid to the perceived quality of the passenger compartment. The prestige interior materials are pleasant to touch; the chrome and gloss black are pleasant on the eye; the paintwork is smooth; and the grain of the dashboard and door panels is exceptionally fine.



The last edition of 'Front Drive' saw Andrew and Frances McDougall entering Finland, from the Baltic States. We continue as they enter Helsinki...

Driving in Helsinki proved

to be a little challenging, as there was a G8 conference [or something similar]. The road network and the public transport systems were awry, which makes the recent Melbourne experience appear like a picnic. We headed out of Helsinki quickly and decided to visit elsewhere, coming back to Helsinki later. However, on the excellent Finnish roads we were amazed at the huge density of speed cameras. You are constantly on the lookout for them. They have warning signs up saying that there are speed cameras in the next so many kilometres – sometimes you see them and sometimes you do not. You appear to be no sooner out of one speed camera zone when you

are warned that you are entering another. This is just like Britain, which is bristling with speed cameras on most of the non-motorway roads. We had not realised how lucky we

are in Victoria – just do not tell Mr Bracks. From Finland, we caught a ferry to northern Germany. This took a day and a half and two nights. However, it was more like a cruise, with very comfortable facilities, your own allocated table and fantastic meals, which were all part of the package – the Tasmanian ferry could learn a thing or two.

Once in Germany we dashed off to the Jutland area of Denmark and visited some of the coastal areas where there are long sandy beaches on which cars, land yachts and other wind-powered vehicles are allowed – the weather was beautiful and everyone was having a great time. We then headed back to Hamburg





and in doing so, we passed over the enormous North East [Kiel] canal that was built in the late 19th century – a huge earth moving and construction exercise done at a time

week cruise on the canals. On the way, in Germany in particular and also in Holland to a lesser extent, we passed forests of wind generators. We looked to see if there were

large piles of dead orange bellied parrots beneath them

but we could not see any dead birds of any description, even though lots of migrating birds pass this way. We did see however, quite a number of contented cows and sheep sleeping and grazing directly beneath the blades. I find the turbines quite attractive as they lazily rotate and so feel that some Victorians are a bit precious when they mount their protests against them.

If you are content, as are we and our friends from Chile, to move fairly

when they did not have the powered equipment that we have now. The canal saves shipping from northern Germany having to go all the way around Denmark in order to get to the Atlantic. On peering over the side of a bridge, we saw a small yacht going in one direction whilst a couple of tugs and then some huge sea going container vessels were heading in the other direction.

It was then off to Utrecht in Holland to pick up our boat for a two

## MOTORING WORLD



slowly whilst enjoying the countryside and beautiful towns and cafes, then I can thoroughly recommend hiring a canal boat. In the two weeks we covered around 350km, passing under many lift bridges, but in flat Holland, not many locks. At times, we had to mix it with the big boys on the main commercial canals and this was like being on a bucking bronco as their wash buffeted us – it adds a bit of excitement. We moored in Amsterdam on a couple of occasions in our figure of eight circuit and stayed for four nights. Mooring is an interesting exercise in a tightly packed marina. But it is made easier when the boat has bow thrusters installed, as ours did.

Navigating our way on foot around the cities, especially Amsterdam, is a hazardous exercise as the enormous number of bicycle riders are a law unto themselves. You may well have a green light on a car – pedestrian crossing, but heaven help you if you then step out onto the adjacent, parallel bike path as there is no way the bike riders are going to slow or stop. The bike riders have the car drivers bluffed. We moored and stayed the night in Edam and whilst we were sitting in the outside courtyard of a canal side café drinking a large beer, a man drove by in his partially restored 1915 T Ford. I quickly placed the beer on the table, jumped up and chased down the street after him, shouting stop. This he did and I introduced

myself and then hopped on board and he drove me to his home and then kindly brought me back to my beer. It turns out that he is preparing the car for the 2007 [genuine 100th anniversary re-enactment] of the Peking to Paris. He has his car well sorted and he gave me his web site so that I will be able to follow his progress.

We visited the Aalsmeer flower market, where 22million cut flowers and plants are auctioned each day. The undercover floor area is 1million sq. m and it employs 2,000people. The blooms and plants are transported on multi-level wheeled trolleys hooked up train like and towed along by little motorised tugs [there are lots of these trains like aircraft luggage tugs and trolleys but on a thousand fold scale curving around all over the place]. It is a form of organised mayhem with flowers going everywhere, through the auction rooms and then onto the distribution bays. And just to complicate things, messengers thread their way through the trains of flowers on their bicycles – besides the sight of wonderful bright fresh cut flowers, the whole exercise is mesmerising.

Later we were sitting on our boat in Gouda when we found we had a free Wifi broadband connection for our little laptop computer that we had with us. Our niece had sung with a choir in a national competition and we were able to log onto the ABC and listen to the choir on an ABC



## MOTORING WORLD





pod cast recording – perfect reception and at no cost.

We had ten days in the UK and hired a Renault Scenic which is very similar in concept to the Citroën

## MOTORING WORLD

Picasso. This was a long wheelbase seven-seater model and had better road holding drivability than the Picasso. However, it only had a 1.6L petrol engine which was quite inadequate. You really had to rev it out to make it go and it had no lugging performance. It made the 1.6L turbo Diesel Picasso seem powerful. Also for a similar range of driving conditions, it only returned about 9L per 100Km [about 50% more fuel consumption]. Driving in the UK generally is a pain as you are all the time slowing for towns and villages or trying to find your way around cities that now have restricted access and bus lanes only to the place you want to go. In addition, they still use miles which seem to take forever and when you want to get on a bit of spurt there is another wretched speed camera sign. At least in England the drivers are courteous when you wish to merge and our Australian drivers could learn a thing or two.

We drove into Wales and visited the Simpsons at Earley Engineering and saw a wonderful collection of Alvis cars – some in resplendent condition

and others in need of work – major in some cases. We just missed seeing the Tonkins, but SMSed them on their phone whilst they were driving in Cornwall in their mystery acquisition Alvis. Also drove to Kenilworth near Coventry

to Red Triangle to purchase a few small Alvis parts, for the Speed 25 restoration, at extortionate English prices. As we were on the outskirts of Coventry we decided to pay a visit and show my mother the historic cathedral remains. This is the most diabolical city to drive around where you can see where you want to go but can never get there due to continual circular roads, pedestrian malls and bus lanes. In the end, we gave up and did not get to see the cathedral.

Our final country was China – it is a wonderful place and the people are fantastic, in that they have respect for their elders and have tolerance for others. Our first stop was Beijing, which is fairly typical of other cities that we visited. With the advent of some prosperity and the adoption of Western consumerism there is a significant car ownership [car club membership in China is high, for those who have cars and also for those that aspire to own a car – many of the clubs are one make clubs based on current models] interfacing with the traditional bicycle and rudimentary motorised



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vehicles. The cars and motorcycles are all modern [it is no use going there to look for veteran cars] and are mostly of Japanese and European design. However whilst you

## MOTORING WORLD

are seeing Hondas, Volkswagens, Peugeots, Citroëns, Mercedes, and Fords, which appear to be the latest Japanese and European imports, this is not the case as 95% of China's vehicles are manufactured under licence in the country.

The roads and streets are well delineated, with white lined lanes, controlled intersections and lane separation between cars and bicycles. However when it comes to intersections it is amazing to watch the interaction between the cars, bicycles and pedestrians. The pedestrians may have the green walking

man sign but this does not stop the cars and bicycles coming through the line of pedestrians. You just have to get used to the fact that you keep walking, knowing that the cars and bicycles will not hit you and that they will weave their

way around you. In addition, you see some incredible bicycle manoeuvres as they thread their way through and around the cars, trucks and buses. It is commonplace to see cars on a three or four lane road; drivers deciding that they are in the wrong lane and immediately move across lanes, with indication, to the lane that they want to be in. This is all achieved, without drama or accident because the Chinese people are generally tolerant and courteous. Their driving habits would not work in Australia, as generally Australians are intolerant and do



not know how to merge and give way to others. The road systems in China are generally very good and up to date, but in the cities struggle to cope due to the volume of traffic. It is going to be difficult for them to keep ahead of the expansion of vehicle ownership.

Whilst Beijing is well advanced with the preparation of the Olympics venues, traffic congestion is going to be a major issue. Beijing, like other cities has a good taxi network [very reasonably priced and easy to use if you have your destination written in Chinese script] and a good underground metro system. Unfortunately, the infrastructure supporting the metro is lacking – there is little in the way of automated access via escalators etc and if you are disabled then it would prove very difficult to get around.

We travelled from major centre to major centre by domestic airlines.

These are all equipped with late model planes, supported by modern airport facilities. The only problem I had with the planes is that the Chinese people are generally of smaller stature than I am, so the seats are close together and leg room is a problem. The buses we travelled on were all modern and of high standard. We travelled a 600km length of four lane highway from one airport to the Yangtze River on a bus and it was interesting to note that the highway was divided by armour rail for its entire length – great for BHP I assume. There was regular signage advising drivers to maintain their distance from the vehicle in front and to ensure that seat belts were worn.

In some of the cities and towns, I was fascinated with the rudimentary three-wheeled bicycles that had a small engine buried in the frame to assist the rider. The load that





these vehicles carried was incredible. There were also other three and four-wheel truck type workhorses powered by single cylinder diesel engines which were water cooled, but

materials, from coal from mines in the walls of the Yangtze valley to manufactured goods from inland industrial cities. The new dam on the Yangtze has incorporated a huge dual lock system that will allow each lock system to

pass 50million tonnes per annum. In addition, there is a 3,000tonne ship lift system which can pass the smaller ships across the dam without them having to clog up the lock system.

All this large scale shipping contrasts with what we saw on the Li River. There, aboard one of the 100+ tourist boats that navigate the river daily, we saw traders and water taxis using rafts made from five to ten bamboo logs lashed together. These are very effective and glide with little freeboard on the surface

in the manner of the old stationary engines which had a cast iron water reservoir around the cylinder – no radiator or circulating system, only steam rising from the surface of the water. We saw some incredible loads of new tractors/machinery being transported on trucks/semis – they seemed to get away with it but our OHS and laws would not allow it.

The Yangtze and other major rivers are main transport routes, with constant shipping traffic conveying

## MOTORING WORLD



of the river. The bamboo logs are about 150mm in diameter and have naturally occurring diaphragms located periodically along their length to maintain buoyancy. Bamboo is a fantastic material as it can be used for boat building, scaffolding, structural members, for decorative purposes and for nourishment.

In China's largest city, Chong Qing, [32million people] traffic flow is generally good as it is hilly and hence no bicycles and they have built a lot of motorways and flyovers thereby eliminating intersections and traffic lights. The last significant transport highlight for us was in Shanghai when we caught the Maglev train from the eastern side of the river to the international airport. This train is run by computers and is driverless. The 32km trip took eight minutes and within a few

minutes from departure we reached the maximum speed of 431kph. As you can imagine the curves are heavily banked to compensate for the side thrust. However, it is very smooth and it is remarkable how clear the scenery is; even when travelling at this speed. We were only at 431kph for 30seconds and then the train starts to decelerate. It is a strange feeling because when it has slowed to around 300kph you felt as though it was crawling and you could step out. The most dramatic occurrence was when the returning train on the parallel line passed us. There was a tremendous jolt and whoosh as the air was compressed between the two trains. As the closing speed between the trains was in the order of 700kph the jolt effect was only momentary.

Andrew McDougall





I suppose we all have different idea of what constitutes 'early'. Even more wide ranging is what constitutes 'early on Sunday'. I was guessing 9am.

and Traction-owning set made up for some poor displays of other models from Citroën.

I counted but two GSs, three CXs and one solitary XM.

## FRENCH CAR FESTIVAL

How wrong was I? Apparently the first people on site for the French Car Festival were there at 7:30am. So, by the time I arrived most of the tents had been erected and the field was already starting to fill with display cars.

I have to say that it was clear that Citroën owners are not given to early starts – at least, not in comparison with Renault and Peugeot owners. At 9 o'clock there were way more Renaults and Peugeots than Citroëns. This despite there being both Citroën clubs in attendance.

Good representations from the DS

However the CX line was enhanced by the presence of an all~to~rare Familiale and the XM was an early 2litre model. The judges decisions?

Best Alpine: 0028H

Best Citroën: 5CV, 4-997 [Mark McKibbin]

Best Peugeot: 203, CH2853 [John Marroitt]

Best Renault: 1909 Renault AX

Best Simca: Vedette CH 9116

Best Other Marque: Hurtu 1913

Best collection: Robert and Kaye Belcourt's collection of 'Rally' DS,

Clockwise from below: We had a fine line-up of Traction, which drew a great deal of interest over the day. We also had one of the best array of vintage models I have ever seen at a French Car Festival. Proof that the cars on display at these events are not primed to perfection. This hard~worked BX is proof.



Renault Floride, Renault Virage, Peugeot 306 Cabriolet, 2CV... I am sure there was one other on display.

Best of Show:  
Winner: 1909 Renault AX  
Second: 1913 Hurtu

People's Choice: Darracq TUN703  
[Mark McKibbin]

The Peugeot Club also ran their Club Concours on the day.

Best Worm Drive: John Marriott, 403

Best Rear Drive: Neil Beddoe, 504 cabriolet

Best Front Drive: Lucien Bianci, 205 GTI

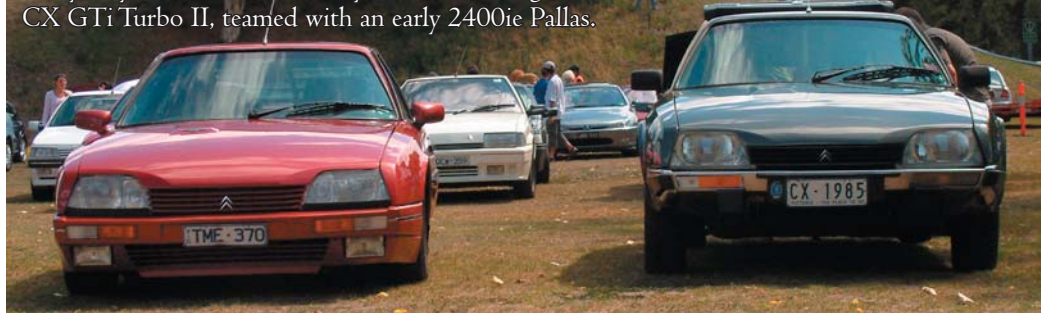
Best Peugeot – Salman Chaudray 604







Clockwise from above: Early 2litre XM that was for sale [\$6,500]. Sorry, I have no contact details. Mark McKibbin's prize winning pair: Darracq and 5CV Citroën. Two period beauties: Renault 16 TS and Citroën GS Pallas. The very early, and rather later BXs of Mark Tobin. Two DSs: so lovely they would have to win anyone over to being a devotee of the model. The editor's late-model CX GTi Turbo II, teamed with an early 2400ie Pallas.





The internet is a wonderful thing. It can be an excellent source of information, and disinformation. It is great way to share views and increase your

of the Japanese guys years ago.

Don't you think Diravi has something to do with it too?  
Gary

## TORQUE STEER

knowledge, via chat groups.

For those of you who are not aware the Yahoo website is host to a number of groups that are relevant to Citroën. There are groups for most models from the marque, and of these the most active is the CX group. I think that for every one GS related message in my email inbox, there must be 10 from the CX-afflicted.

The following is the majority of a recent conversation thread regarding torque steer.

CXs do not torque steer. Only front wheel drive cars I know that do not.  
Gary

No properly designed FWD car – with equal length driveshafts [which is why there is that centre support bearing] will.  
Adrian Chapman

Proving most of them are not properly designed. Especially Honda, even the 2007 I test-drove a few months ago. Citroën was way ahead

No, because Gs and 2CVs do not torque steer. Nor do [proper] Saab 900s. Equal-length driveshafts...  
Adrian Chapman

Do not forget the DS and the SM... for that matter the Traction Avant then eh?

Sure, if the engine is going straight then it is easier, but I was really referring to the transverse types and dealing with the design limitations well.

I mentioned it before but just wanted to add that the WORST car I have ever driven in this regard was a Ford Probe that my sister-in-law had... if you gave it even SOME gas when you had the wheels turned to the right it would just about LOCK the wheels there... it was... startling

I always wanted to like Hondas because when I needed a gas miser during the gas crisis back when, I loved the economy of the Honda 600 I had, but I cannot believe I put up with the other limitations of the horrible little beast for 7 years.

Bad seats, bad doors, bad suspension, bad heating, bad noise... all

the plastic was 'barbie' quality... but I had a lot of fun driving that car all over the US and 25,000 miles around Europe living in it after I altered it to be the smallest camper in the world... I presume that title until I see something on the internet to take the crown... probably tomorrow. It would have to be an original Mini or Issette made into a camper.

I keep thinking I might fall for a BMW Mini, if they would make a Maxi version and stretch it... just stretch it and maybe bump the top up from the back of the doors rearward... just a little raised roof of about 3 inches for more room. I think they could sell boat loads of them as kind of hatchbacks with fold down seats in back....put in a surf board, snowboard etc...

Sorry off topic but still about cars at least  
Gary

Ds and SMs do not have equal length drive shafts. In fact, the D engine is located to the right of centre – presumably to offset the weight of the driver. The reason that Ds and SMs have no torque steer is that the steering has centre point geometry. That is, the wheels pivot around the centre of the contact patch. This is also why it is virtually impossible for road irregularities to cause deflection of the steering wheel – that and the design of the steering system [in

order for the rack to move, a valve in the rotating union has to open to allow fluid to move in the rack. CXs also have centre point geometry, but it is achieved differently from in the D and SM.

The D and SM pivot point is vertical through the top of the tyre and down to the contact patch. The CX steering pivot is on a diagonal axis through the upper suspension arm ball joint through the lower ball joint and the contact patch. If the tyre and wheel combination on the car results in either a larger or a smaller rolling radius, the pivot point will no longer pass through the centre of the contact patch.

Many cars have a steering pivot point that is well inside of the centre of the contact patch. If you turn the wheels on these cars while it is stationary, you will often find marks that form an arc. Such vehicles will often suffer from torque steer even if the drive shafts are of equal length.

In order to reduce, or eliminate, torque steer in these vehicles, the diameter of the drive shaft segments must be greater on the 'long' side to compensate for the natural twisting tendency of the shaft. In effect, if the shaft on one side is 2 feet long and the shafts on the other are 4 feet long total [using an intermediate shaft with support bearing], when torque is applied the 2 foot outer end of the 2 foot long shaft will receive more torque than the outer end of



the other. Preventing this would require the intermediate shaft to be made either larger in diameter or of a more torsionally rigid material so that the moment of rotation is

Scott, The only thing wrong with your argument is the fact that torque steer does exist. Torque steer causes the car to veer right or left when

power is applied with the wheels pointing straight

ahead. The effect is exaggerated if the wheels are turned in the direction of the torque steer. If the differential did, indeed, always apply equal torque to both drive shafts, there could be no torque steer. The function of the differential is to allow the driven wheels to turn at different speeds in order to prevent skittering in turns [skittering being a technical term].

Whenever you have two rods of the same diameter but differing lengths, the shorter rod will transfer more torque than the longer rod – provided they have the same stiffness characteristics per unit of length. Bob

I was always under the impression that CXs did not [have centre point geometry] – the outboard brakes made it impossible – and that Diravi used brute force to provide a similar effect in the event of a blown tyre.

Also, if the tyre and wheel combination on the car results in either a larger or smaller rolling radius and therefore the pivot point no longer passes through the centre of the

contact patch, what size tyre does it work for? Remember, CXs had about five sizes fitted by the factory through the life.

Adrian Chapman

The original CX suspension has centre point steering when fitted with the original tyres [I75 I4 – '80s from memory] when the suspension was at the normal ride height & tyre pressures. Project the swivel axis [it is at about 10 or 15°] down to the road surface and its contact point coincides with the centre of the tyre. This unique designed coincidence can only occur with the designed tyre diameter/rim/tyre pressure etc.

As well as tyre size changes there have been rim offset changes, originally 49 mm. then with the wide track it changed to 45mm, maybe they reconsidered the centre point – who knows? This offset change occurred when they went to TRX and I95 I4 70 tyres – which have the same diameter. Before this tyre size changes had the same rolling diameters as the original I75 '80s. Chris Stuart, Perth, Aus

After this interesting, but not quite fruitful discussion, I headed to the internet and did a search. The first link was to Wikipedia. [www.wikipedia.com].

Torque steering is the influence of the engine torque on the steering for some front-wheel drive vehicles. For

example, during full acceleration the steering may pull to one side, which may be disturbing to the driver. This either causes a tugging sensation in the steering wheel, or else the car veers from the intended path. As the Torque Steer Effect is directly related to the engine torque capabilities this problem becomes more and more evident with high output engines with strong low rpm range torque.

Torque steering may be confused with steering kickback.

Causes

Root causes for Torque Steer are [1]:

Nonsymmetric driveshaft angles, e.g. due to

Nonsymmetric design of the vehicle, e.g. different driveshaft length

Transient movement of the engine

Tolerances in engine mounts

Different driveshaft torques left to right

Suspension geometry tolerances

Unequal traction forces due to road surface [ $\mu$ -Split] in combination with Kingpin Offset

The open differential cannot fairly distribute torque between the two driveshafts, the power may be transmitted to only one driveshaft

Ways to reduce the effect of torque steer

Have both driveshafts of the equal

## TORQUE STEER

the same at both ends. This is not necessary on the CX due to the steering geometry [and Diravi does help, but only slightly]. Bob

And I, unfortunately, must disagree. Your argument would be quite correct, but you have neglected the action of the differential, whose function is exactly to deliver equal torque to both wheels, regardless of relative speed or relative angular position.

The worst torque steer car I have driven is an early '90s VW Golf GTI. It handled quite well and had lots of power, but hard acceleration would more or less freeze the steering wherever you had it. On neither my DS with power steering or my rather primitive early CX with, as we say in the States, Armstrong power steering, is any torque steer perceptible. The CX is very subject to shaking on acceleration if the CV joints are not in rather good nick, but no torque steer.

Yours for productive discussions, Scott

length by using an intermediate shaft [or 'lay shaft'] on one side of the transmission. This is already implemented on most modern cars [2]. When the driveshafts have dif-

ferent length and excessive torque is applied, the longer half shaft flexes more than the shorter one, thus causing one wheel to momentarily spin more slowly than the other, resulting in a steering effect. So the equal length of the driveshafts reduce the torque steer effect.

Implement double wishbone suspension [3] [4] or multi-link suspension [5].

Distribute the torque better between the driveshafts. Automobile transmission manufacturers like Quaife, Torsen, TrueTrac, Gold Trac offer worm-gear-based torque-biasing limited slip differentials for front-wheel drive vehicles, which help to

reduce the amount of torque steer [6] [7] and improve cornering. Reduce the amount torque from the front axle by passing part of torque to the rear axle. This is achieved on all-wheel-drive [AWD] vehicles with full-time AWD, e.g. with mechanical gear-based transaxle differential.

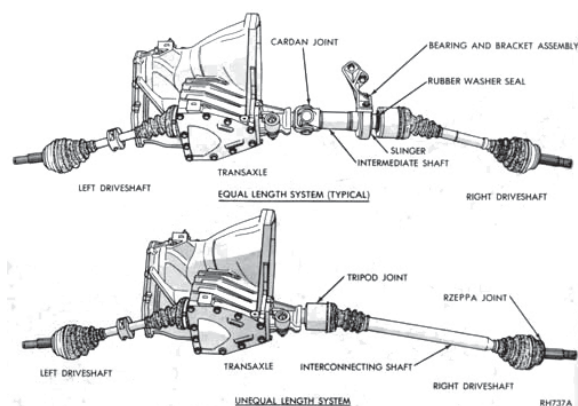
Power-assisted steering [set on most modern cars] make the torque steer effect less noticeable to the driver. Steer-by-wire [8] also hides the effect to torque steer from the driver.

Note that the rear-wheel-drive vehicles do not suffer from the torque steer, since the engine is not connected to the steering gear unless it has all wheel steering.

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## TORQUE STEER



tion Using Steering Torque. Stanford University.

Source: Wikipedia

The view that torque steer is related to unequal length driveshafts is very common in articles on the internet. A dissenting voice is from www.diseno-art.com.

Torque steer is a phenomenon which adversely effects the handling on front wheel drive cars with high torque motors. It is the name given to the tendency for some front wheel drive cars to pull to the left or right under hard acceleration. It is a result of the offset between the point about which the wheel steers [which falls at a point which is aligned with the points at which

the wheel is connected to the steering mechanisms] and the centre of its contact patch. The tractive force acts through the centre of the contact patch, and the offset of the steering point means that a turning force about the axis of steering is generated. In an ideal situation, the left and right wheels would generate equal and opposite forces, cancelling each other out, however in reality this is less likely to happen. Torque Steer is often incorrectly attributed to differing rates of twist along the lengths of unequal front drive shafts or CV joints.

So, I don't know about you, but I am still lost.

Leigh F Miles



I recently decided to check out the performance of some structural adhesives as an alternative to silver soldering or brazing.

In particular, I was looking at a couple of Henkel products – Loctite 319 and Loctite 326.

Loctite 319 is a modified acrylic ester and is a general purpose structural adhesive recommended for bonding metals, glass, ceramics and plastics. The product cures when confined between close fitting parts with the aid of Activator 7649.

Loctite 326 is a polyurethane methacrylate which offers higher shear strength and faster cure than 319.

Technical data sheets on both

products can be found at [www.loctite.com](http://www.loctite.com)

OK, so off to my local bearing supplier to purchase some Loctite 326.

'Sorry mate, we don't stock that any more. We had a number of complaints that it didn't work – shelf life problem'.

Ah well, how about 319?

## PRODUCT TEST





'Yeah, no problems'.

So I came away with a 50ml bottle of Loctite 319 and a 100ml bottle of Loctite 7649

The wire in choke cables is piano wire and in this case was Imm diameter. Piano wire in this sort of size is widely used in model aircraft and a length was sourced from my local model shop.

The problem

was how to connect the new wire to the old fitting. I didn't have any suitable tooling to crimp this and did not want to make some. Silver soldering was out as this would draw the temper of the wire and lead to early failure. A quick calculation demonstrated that a Imm diameter hole about I Imm deep would provide sufficient area with Loctite 319 to give a tensile strength of over I8kg.

A trial sample was made up. The Imm drill broke at 7mm depth so I decided to test that. My spring balance goes to I2kg and the sample was OK at that. You would have to be a gorilla to pull a choke on at better than I2kg.

The new choke wire was secured and all was reassembled, works well.

Since then, I've used the Loctite 319 for a number of other applications with success. Cleanliness is important, as is the use of the accelerator.

Roger Brundle



## PRODUCT TEST

Accelerator.

The immediate task was the repair of a choke cable from my DS 21. The actuating wire had fractured near to the knob assembly. I had partially disassembled the arrangement before deciding to send it to a well advertised 'expert' in cable repairs. I received a phone call from the 'expert' to inform me that he couldn't repair it as it was all crimped together. Duh!! OK, send it back.

Some delicate work with the Dremel tool and a cut-off wheel and all was on the bench.

Yes, you are right. This picture, sent to me by David Gries, has nothing to do with Roger Brundle's Loctite review. It is simply an interesting 2CV-ish motorcycle side-car.



Here we are at the end of another club year, it is my intention to carry on as spare parts officer for at least another year thereby maintaining the continuity for a little while yet. Every year presents a new

set of challenges some meet with success and others are still there to be met the following year!

It is however with great pleasure that I can say the challenge to supply new Slough hubcaps for our cars was completed in this past club year, this alone has been a 30 month project, I have re-ordered another couple of sets and have one set in stock at the moment from the original order.

All other parts have been flowing quite nicely with very little shortages, we have had some very large orders throughout the year and I believe we have been able to satisfy our members quite well.

I would like to thank all of the members who have supported the parts scheme and particularly those who have assisted in producing, procuring or simply just pointing me in the right direction for obtaining hard to find pieces, without their help the job would be much more difficult than it is.

At this stage I still have not compiled the list of ID & DS parts

as my life in the past six months has been quite busy to say the least but I am looking forward to getting things a little more under control and completing

that task in the near future. The only new product we have this month is ID clutch thrust bearings, part/no 43I9I7, these are priced at \$68.00 each, as usual we are always on the lookout for anything that will make our life easier, so if there is anything you can contribute please give me a call.

Head gaskets for ID's look like being the next project, I am looking at having some made, I have estimates of around \$I75.00 each, if anyone out there has access to these components please let me know as we always try to get the best price on parts and pass the savings onto our members.

I do encourage as many as possible to make it to our AGM and hopefully consider standing for a position on the committee, there is always room for new blood and if I do not see you there I do hope to catch up at the CIT- IN at Mansfield over this coming Easter.

Rob Little



## SPARE NEWS



## FOR SALE



Priced reduced to just \$9,000 to ensure a quick sale.

**1982 CX 2400 PALLAS**

1982 CX 2400 Pallas, five-speed Mechanically excellent, body and interior very good, lovely black leather. Victorian reg SIE 245 to May '07. Metallic light blue. Nothing to spend. \$4000 Contact: John Wright, wrightlines@bigpond.com [30/08]

**1973 DS SAFARI**

Citroën DS Safari 1973, only two owners from new. A car in very original condition, immaculate throughout. WA reg to May, '07 XDS 023. \$25,500. Phone Jeanie Isaacs [08] 9377 7365. [30/07]

**TYRES FOR TRACTIONS**

2 x Michelin "X" Stop pattern 185 x 400 suitable for Big 6. Very good condition 80% tread. \$250 each.

1 x Michelin 'X' SDS pattern 185 x 400 suitable for Big 6. Very good condition 75% tread. \$200

1 x new cross ply recap 165 x 400 but has circumference same as 185mm tyre. suitable for Big 6 spare. \$55

Citro Motors [03] 9419 4537 [30/07]

**DRIVESHAFT CONVERSIONS**

Change over, reconditioned driveshafts upgraded with modern CV joints. Off the shelf availability for; D-Series, Big 6, Light 15 and Big 15. Price on application. Citro Motors [03] 9419 4537 [30/07]

**BIG 6 EXTRACTOR**

New exhaust manifold fabricated in Extractor style for Big Six engine. \$600. Citro Motors [03] 9419 4537 [30/07]

**MISCELLANEOUS BIG 6 PARTS**

Engine, gearbox & drive parts. Accessories; eg; Air cleaner, carby, generator, starter, manifolds, fan, ring gear etc, etc. Various body panels, instruments and interior parts. Original factory workshop manuals, either collectors condition or useable All parts are for sale at reasonable prices ending over four decades of Big 6 parts hoarding. Apply direct to Mel Carey at Citro Motors. [03] 9419 4537 [30/07]

## FOR SALE

**1951 TRACTION AVANT 11BL.**

In overall good condition with no rust in the sills, floor or bootlid. Interior is in excellent condition except for the front door panels which are water marked and the front seats which are not finished but the original French material to complete them is provided. It still has the original rubber floor mat to put over the carpet and the original Citroën ignition key. The engine has only done about 47,000km since a total rebuild, gearbox is OK, selectors need adjusting. Loads of spare parts. I also have a set of Traction special tools which include brake hub pullers, bearing pullers, ball joint pullers, driveshaft clamp etc. which are available by negotiation. Price? \$11,000 for the lot! [tools excepted] The spares alone would be worth a few thousand. No reg – no RWC Currently registered QQA 626. Contact Jack [John] Couche, jaksusan@hotmail.com or [03] 9754 3583. [30/05]

**1979 CX PALLAS C-MATIC**

1979 CX Pallas sedan. Reg no. RYW 225 C-matic. Burgundy paint and fawn leather interior – a great combination. Recent money spent on repairs and maintenance over last three years of ownership. Good body. Needs a re-spray. Fair interior. Registered until December 2006. Runs well but steering rack has small leak. No RWC, \$500 for quick sale. Ring Peter [03] 9521159 or 04 0138 3878. [30/05]

**1963 AMI 6**

Ami 6 lhd 1963 model, registration AMI 6. 66K genuine km, rings recently replaced by David Gries. New Xs all round, new oil cooler and new battery. Original

upholstery. Body gris leban to correspond with the year of manufacture. I have owned the Ami for ten years. The luxury and aerodynamics of this car compared to other 'A' series is unquestionable. Quiet and a joy to drive, not to mention its curiosity and more than usual fun factor!! Price drastically reduced to just \$9,000 to ensure this car is sold. Contact: Carl Perrin, Ph\fax [08] 9386 3268, 04 1247 2527 [M], email kaycarl@efel.net.au. Additional photos available. [30/03]

## WANTED

**EARLY 2CV**

Citroën 2CV, prefer early model [up to early 1960s] in running condition, if possible. However, anything will be considered. Contact Geoff Scott [03] 9699 6654 Email geoffscott1@iprimus.com.au [30/06]

**TRACTION PARTS**

Wanted for 1951 Light 15: set of hub caps for easy clean wheels, front seats, radiator, accelerator control linkages, 12 volt horns

Wanted for 1948 Light 15: set of rear guards and number plate holder. Bob Shackley [02] 6251 6134 [H] or kyzyl@bigpond.com [30/08]

**BIG BOOT LIGHT 15**

Citroën Light 15, Slough-built, big boot, wooden dash. Prefer black, with a good body and mechanically good; running well with RWC. Contact Jose, 04 1242 8234 or email with picture rivimex@optusnet.com.au [30/04]