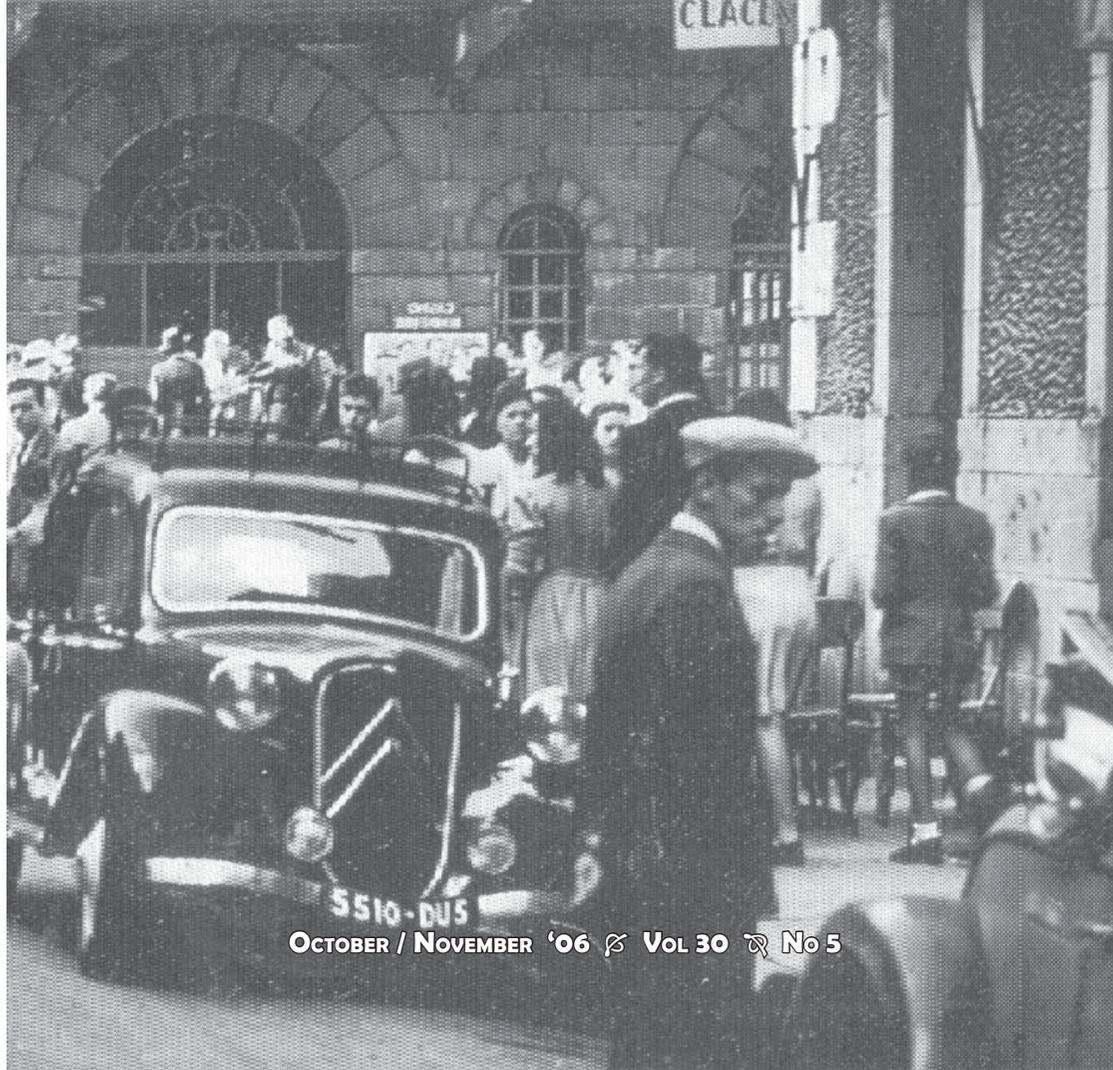


FRONT DRIVE



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:
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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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COVER IMAGE

The cover image is taken from the Traction Avant Nederland calendar and depicts Place Michel Bertrand and the Thermal Spa at Le Mont-Dore, France.

MEMBERSHIP

Annual Membership is \$40. 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

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The deadline for the next edition of 'Front Drive' is Friday, November 3

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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

Spring seems to be with us early this year – well, it certainly is in Melbourne. For those of us who ‘hibernate’ our cars over the winter, it is time to get the Trac-tion [or D, or whatever] out.

ED SED

To help you along the way, we have ‘Electricity for Dummies’. Well, actually it is a remarkably thorough article on diagnosing and solving electrical problems. This article was brought to my attention by Rob Barton, from Bairnsdale, in Victoria.

Rob Little also shares with us the situation on the not-quite-ready hub caps and some important news on rubber.

On the car front, there is no Member’s Model, as despite pleas, no one has written one. Instead there is an update on what Citroën will be showing at the Paris Motor Show. While the C4 Picasso will be shown at the Sydney Motor Show, the C-Métisse will not be making the journey from Paris.

Currently, the National Motor Museum, at Beaulieu in English is home to a superb display of Citroëns. The UK Citroën Car Club recently visited this display [which runs until May 2007] and a report on their visit is also included.

On a serious note, it has been decided that the Club’s policy on discrimination and harassment

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should be re-published. This document was prepared over a decade ago and it has been important enough for it to be printed in ‘Front Drive’ again. All members should be aware that discrimination, harassment, victimisation and vilification are serious matters that are not only illegal under Australian law, they unacceptable ethically within CCOCA.

Lots of A-Tractions and lots of classified ads...

Relentless,
Leigh F Miles – Editor



CCOCA is hosting the 2007 French Car Festival on Sunday II Feb. I have obtained the services of professional Motor Show MC “Pinky” which promises to add an extra element of fun and interest to the event.

Organising the venue, food supplies and logistics has been a lot of work, but I hope to soon be in a position to send a proposal to potential sponsors, to offset some of the running costs. In addition to the unending support I get from Ian, I have had invaluable advice and encouragement from the Renault and Peugeot clubs with this event.

Meanwhile progress on 2008 Cit-In has been held up by difficulties getting a meal venue, and now we have a couple of options but also some significant issues to consider; luckily we have made progress regarding accommodation, and that now seems to be sorted as well as possible. Ian and I have made three trips to Deniliquin, the latest last Sunday. I hope that by the time you read this, we will have moved on to arranging the concours, day trips and lunches. I could not have managed this without Ian’s support and assistance, and also feedback from Leigh Miles and David Gries

In the meantime, do not forget to visit the web site for CitIn 2007 [<http://Cit-In2007.info/>] and download a booking form. The

word around town is that you also need to be booking your accommodation, as there a number of other events being held in Mansfield over the Easter break

and the last thing any of us want is to be staying miles away from the CitIn ‘action’.

You will note that there is no day run planned for November or December. Leigh’s revised role of Events Co-ordinator means that you, the members need to take a higher profile and suggest and/or co-ordinate these events with Leigh. If no-one steps forwards, then I am afraid the next day run will not be until January. See the A-Tractions pages for the events where the Club is involved.

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

● SEPTEMBER MONTHLY MEETING

WHEN: Wednesday, September 27
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

Mark McKibbin will share with us his Citroën experiences in Alaska, as part of Raid 2006. Some of you might have seen some Mark's excellent pictures at the last Club Meeting – but tonight you will see and hear all about this amazing journey.

Supper? You bet.

CCC DAY RUN

WHEN: Sunday, September 30
CONTACT: Peter Dekker
04 2570 3899
petermelbs@yahoo.com

● OCTOBER DAY RUN: STATE COAL MINE – WONTHAGGI

WHEN: Sunday, October 8
LEAVE: 11:00am
FROM: Brandon Park Shopping
Centre, Springvale Rd,
Melway 71, C9
TO: Wonthaggi State Coal Mine
COST: Gold coin entrance to the Park
BRING: Picnic lunch or bbq
makings, thermos, chairs
ROADS: Bitumen
BOOKING: Essential by
Friday September 29
CONTACT: Rod Ward
04 1330 2567 [M],
rodward@optusnet.com.au

Step back in time... In its heyday, the State Coal Mine was a bustling network of tunnels, filled with men and pit ponies, dust and dim lights. Deep below the surface, miners toiled to dig the valuable black coal which powered Victoria's railway network. The mine was Wonthaggi's life-blood, and was active from 1909 to 1968. A visit to the State Coal Mine at Wonthaggi is a journey back to the difficult working conditions of

mining days past. Preserved by Parks Victoria for future generations, this original mine site gives visitors an understanding of the life of a miner seventy years ago.

Things to Do

There's plenty to do above ground
✂ Relax in the theatre as historic film brings Wonthaggi's mining heritage to life.

✂ Follow the heritage walk around the mine site, exploring historic buildings housing , photographs of mining days past and mining remnants.

✂ Climb aboard the KI92 steam locomotive which utilised Wonthaggi's coal to operate.

✂ Meet Cobber the Pit Pony. Facilities include sheltered picnic area and free barbecues and a souvenir shop with light refreshments available. Heritage – Discovery: Explorer William Hovell discovered black coal in the cliffs at nearby Cape Paterson in 1826. Small and isolated mining operations followed in the 1840s-1860s.

From the 1880s exploratory drilling operation commenced in the area. Small private coal mines had opened in the Korumburra area in the 1880s-1890s, but Victoria was still dependant on

NSW for supplies.

In 1909, a miners' strike starved the Victorian Railways and Melbourne's coal industry, forcing a hasty development of the Wonthaggi mines as a public enterprise.

Shaft sinking operations began in 1909. Realising the future potential for the coal mines, the township of Wonthaggi was surveyed, and one hundred miners cottages constructed by mid-1910. Expansion of the coalfield followed with the establishment of a powerhouse and workshops complex, a brickworks and nine well equipped mines. Employment and production reached its peak in 1929/30, with over 1,800 men employed in mining 660,000 tons of coal in that year.

The 1930s depression severely affected the State Coal Mine. A significant number of men were laid off in 1932. Industrial unrest followed, with a 5 month strike ensuing in 1934. The mine ran at a financial loss to the Government from the 1930s onwards. Two further mines were opened, but failed to slow the decline. From 1958, no new workers were employed, and early retirement was introduced for the older mine employees. When the last mine closed



in 1968, only 100 men remained. The town of Wonthaggi survived by encouraging the establishment of other industries.

A-TRACTIONS

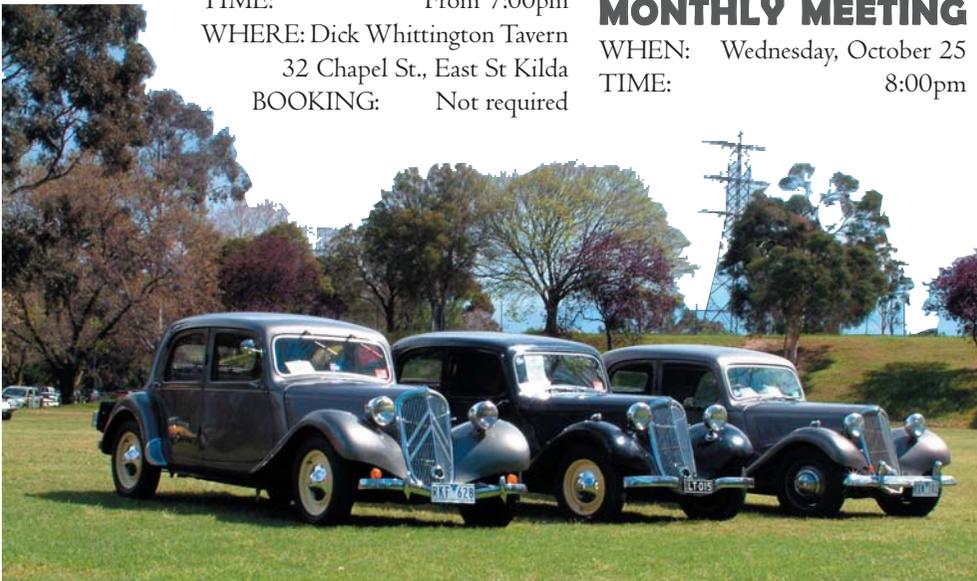
CCCV AGM & CLUB NIGHT

WHEN: Wednesday, October 11
 TIME: 8:00pm
 WHERE: CCCV Club Rooms
 BOOKING: Not required
 CONTACT: Peter Dekker
 04 2570 3899
 petermelbs@yahoo.com

AGM and club night.

CCCV-CCOCA PRE-CONCOURS DINNER

WHEN: Saturday, October 22
 TIME: From 7:00pm
 WHERE: Dick Whittington Tavern
 32 Chapel St., East St Kilda
 BOOKING: Not required



CONTACT: Peter Dekker
 04 2570 3899
 petermelbs@yahoo.com

ALL CITROËN CONCOURS D'ELEGANCE

WHEN: Sunday, October 22
 TIME: From 10:00am
 WHERE: Como Park North,
 Williams Rd North, South Yarra
 COST: TBC
 BRING: Chair, picnic lunch,
 sunscreen, sunglasses, refreshments
 BOOKING: Not required
 CONTACT: Peter Dekker
 04 2570 3899
 petermelbs@yahoo.com

CCCV are looking for assistance in judging the All Citroën Concours. Contact Peter Dekker to volunteer your services.

MONTHLY MEETING

WHEN: Wednesday, October 25
 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

reflects the history of Citroën and carries the brand genes and values. Inanimate objects? Certainly not. They all have a soul, whether we are talking about the very first Type A or the ZX Rallye Raid, a wind tunnel model or an item of furniture dating back to the time of André Citroën.



The storage section has an area of 5,000m² for the 300 vehicles collected by the Marque and a smaller area for archives. The 1,400 linear metres of shelving in Le Conservatoire provides housing for design office sketches and plans, original styling drawings by Bertoni, technical documents, displays, lithographies... All these documents bear testimony to Citroën's ability to innovate in sales, advertising and industrial production. The working area also comprises two sections: one for vehicle maintenance and one for model production [another activity conducted at the Conservatoire].

Come and join your Citroënist friends for an evening of chat, news and views. Leigh Miles will have visited the Citroën Conservatoire while in Paris and he will show pictures and tell stories of his European exploits. Inaugurated at end November 2001, Le Conservatoire houses more than 300 Citroën models, together with a range of objects and archives relating to the Marque's history. Past, present and future. Officially inaugurated on 28 November 2001, this building is dedicated to the Marque. Every single document and object under its roof

SYDNEY INTERNATIONAL MOTOR SHOW

WHEN: Thursday, October 26 to
 Sunday, November 5
 TIME: Thursday Oct 26
 5:00 to 10:00pm,
 Weekdays: 10:00am to 10:00pm
 Saturdays: 9:00am to 10:00pm
 Sunday Oct 29: 9:00am to 9:00pm
 Sunday Nov 5: 9:00am to 7:00pm
 WHERE: Sydney Convention &
 Exhibition Centre at Darling
 Harbour, Sydney

COST: Adults: \$17.00,
Under 16 & Seniors: \$10.50,
Under 5: Free
BOOKING: Not required

A-TRACTIONS

AUSTRALIAN INTERNATIONAL
MOTOR SHOW



● **NOVEMBER**

CCCV CLUB NIGHT & AUCTION

WHEN: Wednesday, November 8
TIME: 8:00pm
WHERE: CCCV Club Rooms
BOOKING: Not required
CONTACT: Peter Dekker
04 2570 3899
petermelbs@yahoo.com

Club night and auction.

BENDIGO SWAP MEET

WHEN: Saturday, November 18 &
Sunday, November 19
TIME: Saturday from 6:00am,
Sunday from 7:00am
WHERE: Prince of Wales
Showgrounds, Holmes Rd.,
Bendigo



COST: Saturday: \$8.00,
Sunday: \$5.00,
Weekend Pass: \$12.00
BRING: Chair, picnic lunch,
sunscreen, sunglasses, refreshments
BOOKING: Not required
CONTACT: bendigoswap@
impulse.net.au or
http://www.bendigoswap.com.
au/index.htm

The new Bendigo Exhibition Centre is now complete, and was used for the first time for the 2005 Swap. By all accounts the new facility was an outstanding success. It provided space for new and improved indoor sites, with new stall-holders, and improved visitor facilities.

Special Display: The special display for 2006 will be provided by the Victoria Police Historical Society's 'Living History Group'. It will include Uniforms, Vehicles and Videos, and will be located within the Bendigo Exhibition Centre, sites B-33 & B-42.

Highlights:
☞ Over 1500 reserved sites - indoor and outdoor.
☞ Show and Shine Display Cars are BACK! Eligible Club and Special Vehicles will be on show. If you would

like to enter your car in the 2006 Show and Shine, full entry details and application forms are available on the website.

☞ Large number of Trade and Club Stands.

☞ Steam and Oil Engines displayed by the Bendigo Steam and Oil Engine Preservation Group inc.

☞ Motor Bike Display presented by the Bendigo Historic Motor Cycle Club.

☞ Full 'On Site' Catering by non profit volunteer groups.

☞ Extensive Toy and Model Car show – many new Table Holders and Products will be on show.

MONTHLY MEETING GUEST SPEAKER: RUBBER – WHAT DOES IT DO FOR YOU?

WHEN: Wednesday, November 22
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

Rubber? Yes, tyres are what keep you on the road. Do you realise how small the area of tyre on the road actually is? Yet, that small area of tyre and bitumen contact allows you to drive with confidence and brio.

Come and hear Stefen from Eastland Tyres in Ringwood as he shares with us the latest in tyre technology. Supper? Absolutely.

● **DECEMBER MONTHLY MEETING – CHRISTMAS BBQ**

WHEN: Wednesday, December 20
TIME: From 7:00pm
WHERE: Leigh Miles',
16 Harrow St., Blackburn South
COST: Free
BRING: Something for the BBQ,
salad to share, refreshments, chair
BOOKING: Preferred
CONTACT: Leigh Miles,
[03] 9888 7506
activities@citroenclassic.org.au

With Christmas just around the corner, take an evening to celebrate the festive season with your Citroën friends. Leigh will light the BBQ and provide nibbles, plates, glasses etc. Come along and reminisce about the events of the year and raise some thought on the things you would like to see us do in 2007.

● **JANUARY '07 DAY RUN – MORNINGTON PENINSULA**

WHEN: Sunday, January 21
New destinations and things to do are planned for our January day run this year. Full details in the next 'Front Drive'.

The star of the Citroën stand at the Paris Motor Show [28 September 2006] will be the Citroën C-Métisse, a flamboyant, glamorous proposal for a

The Citroën C-Métisse is not only a car to stir the soul of the onlooker. It also boasts real driving sensations with a driving position featuring the latest technologies, and a specially designed high-performance diesel hybrid drivetrain.

THE PARIS MOTOR SHOW

coupé that, with its diesel hybrid drivetrain, proves that pleasure and performance can go hand in hand with care for the environment.

With its elegant proportions, vibrant bodywork, spectacular door design and extensive chrome, this elegant four-seater four-door coupé revives a passion for the prestigious Grand Touring cars.

C-Métisse is based on the same future-oriented solution as the C4 HDi hybrid demonstration vehicle presented by Citroën at the start of the year apart from one key difference: The electric motors are installed in the rear wheels. This configuration is coherent with vehicle performance and optimises traction. Perfectly suited to the character of C-Métisse, the design

reflects Citroën's expertise in the various hybrid architectures, as well as demonstrating its commitment to cutting fuel consumption and CO₂ emissions.

A high-spec vehicle, C-Métisse also places considerable emphasis on passenger comfort.

The vast cabin features three exceptionally comfy seats upholstered in white leather.

C-MÉTISSE, NEW EMOTIONS AND DRIVING SENSATIONS

Everything about C-Métisse identifies it as a car to stir the soul.

Its elegant proportions and flowing lines embody a harmonious design with a promise of power. The fascinating opening mechanism of the doors makes the observer want to step on board. The driving pleasure and comfort of the driver and three passengers are ensured by the premium materials used in cabin design, the exceptionally comfy individual seats and the sophisticated in-car technology.

A coupé of elegant design

Looking at C-Métisse is a visual shock in itself. Long [4.74m], wide [2m] and low [1.24m], the car is sculptural and almost intimidating. It demands immediate respect. However, far from creating a sense of distance between the onlooker and the car, this respect is mingled with an irresistible appeal, an absolute attraction.

Whether we are looking at the rear wheel arches, the bonnet or even the boot, an astonishing sensuality is reflected in the car's curving, sleekly muscled volumes.

The seduction of C-Métisse is also expressed through a sense of latent power. Even when stationary, the body suggests movement. With its very long bonnet and virtually inexistent rear overhang, C-Métisse brings to mind the design balance of vehicles seen during the golden age of Grand Touring.

The design lines of C-Métisse also reflect the quest for outstanding aerodynamics, delivering improved fuel economy and lower pollutant emissions while also integrating the latest technological developments. Positioned either side of the double chevron badge on the



radiator grille, the headlamps are equipped with a row of LEDs that light up progressively, depending on the steering-wheel angle and vehicle speed. This feature ensures excellent

The second lies in the ballet that takes place when the doors open, extending an impressive welcome to passengers: the front doors open gull-wing style while the rear doors spin round.

Looking beyond the stunning visual

effect, this is actually an efficient solution for easy access. The doors rise up slightly on the roof – a major obstacle when getting into extremely low vehicles – to provide outstanding accessibility.

The parallelogram boot opening also contributes to the overall looks of the car.

A driving position adapted to the driver

The driving position takes full advantage of technological progress to integrate functions that allow the driver to concentrate fully on the road, while also maximising driving pleasure.

The following equipment is provided:

A fixed-centre steering wheel that brings the main comfort functions and driving aids [radio, speed limiter, on-board computer, lighting, indicators and windscreen wiper] within easy reach. This layout, along with the steering-wheel mounted gear paddles, avoids any unnecessary movements on the part of the driver, who is able to enjoy driving pleasure to the full;

Control and start-up buttons on the roof console, reinforcing the sensation of being in a fighter jet;

A driving position corresponding to the optimum position of the driver's eye, with a single height adjustment to match this point; a suspended head restraint anchored to the roof, and two rest electrical functions to adjust the leather steering wheel and aluminium pedal assembly. This innovative layout optimises the driving position while maintaining space for passengers in the back.

This high-tech equipment perfectly matches the design of the driving position whose original central console is divided by five extensions. Positioned between these extensions are the aluminium gear shift lever and other functions including the navigation system controls; seat, steering wheel and pedal assembly adjustment; boot controls, body height adjustment and the sport mode of the suspension system.

The central console extends into the cabin via three illuminated strips featuring a play of light that informs passengers of the current mode of hybrid propulsion [ZEV, recharge, boost, etc.]. This play of light is accompanied by sound effects that are perceptible as soon as the doors are opened. These sounds accompany certain driver actions [getting behind the wheel, starting the car, navigation in the on-board

computer] and indicate the deployment of the aerodynamic airfoils. With these features, C-Métisse comes alive. It transcends the usual coldness of high-tech objects to take on a form of existence that is almost 'animal' in nature.

A high-spec passenger compartment

Upholstered in white leather, the space reserved for the three passengers features an uncluttered design that creates an atmosphere of total relaxation.

Through their design, the three independent seats suggest comfort and lightness. This impression is reinforced by the airy shapes and hollowed volumes of the cabin, in which the leather trim and aluminium inserts clearly confirm C-Métisse as belonging to the world of exceptional cars.

For truly exceptional passenger comfort, each seat has independent air conditioning controls – stamped into the leather door panels – along with individual roof lighting.

THE PARIS MOTOR SHOW



lighting when driving on winding roads by night. At the same time, the Michelin tyres with their central wheel nuts contribute to the sporting character of the coupé.

More specifically, the development of these tyres was integrated with the vehicle design process, in order to optimise resistance to air and thus contribute to the vehicle's excellent drag coefficient [Cd of 0.30].

Spectacular door design and easy access

C-Métisse implements a number of astonishing technical solutions, particularly in terms of door design.

The first surprise is the presence of rear doors on a vehicle that is nevertheless the embodiment of a well designed coupé.



C-Métisse makes full use of its generous wheel base [3m]. The space provided for rear passengers is exceptional for this type of vehicle. Knee room, in particular, corre-

As a result, it is able to combine remarkable levels of performance with fuel economy and respect for the environment.

Diesel hybrid technology serving the environment, driving pleasure and safety

THE PARIS MOTOR SHOW

sponds to limousine standards.

With its leather trim, the luggage compartment is coordinated with the passenger compartment. In addition to the boot, with its parallelogram opening, the passengers of C-Métisse have two other compartments behind the wheels to place the line of Citroën luggage designed exclusively for this concept.

REMARKABLE LEVELS OF PERFORMANCE THAT RESPECT THE ENVIRONMENT

The intelligent design of C-Métisse combines:

- ☞ a diesel hybrid drivetrain
- ☞ optimised aerodynamics
- ☞ limited weight.



C-Métisse features a diesel hybrid drivetrain combining:

☞ A diesel combustion engine: the V6 HDi DPFS, mated to a 6-speed automatic gearbox developing 150 kW [208 bhp] that drives the front wheels,

☞ Two electric motors in the rear wheels, each developing torque of 400 Nm with output of 15 kW [20 bhp].

With its diesel hybrid technology, C-Métisse respects the environment. This is particularly true in the city in ZEV [Zero Emission Vehicle] mode – an ‘extended’, completely silent all-electric mode with a range of around 3 km at 30 kph – as well as on roads demanding successive acceleration and deceleration. In this second case, the hybrid architecture makes it possible to limit consumption by using the two forms of energy together.

On motorways, the V6 HDi diesel combustion engine with a DPFS [particulate filter] sets high standards of efficiency, based on its intrinsic qualities.

By controlling fuel consumption

and thus pollutant emissions, C-Métisse boasts combined cycle consumption levels of 6.5l/100 km for CO₂ emissions of 174g/km.

No sacrifices have been made in terms of driving pleasure, which remains a key priority for motorists. If the driver makes prolonged use of the accelerator pedal, the boost function kicks in to provide the immediate torque required. This function combines the torque of the combustion engine with that of the electric motors to endow C-Métisse with a level of performance worthy of a high-spec sports vehicle, without pushing up fuel consumption. C-Métisse accelerates from 0 to 100kph in 6.2seconds and takes 25.4seconds to cover 1,000m from a standing start.

Rather than pursuing the quest for ever higher speeds that are not practicable in normal traffic conditions, the emphasis has been placed on driving pleasure with clean, fast acceleration. For example, C-Métisse accelerates from 80 to 120kph in 4.2seconds.

Also, the vehicle remains in 4-wheel drive mode while the boost function is active, since the electric motors drive the rear wheels while the combustion engine drives the front wheels, thus ensuring impeccable traction.

Also, when the ESP sensors report low grip conditions, C-Métisse can activate its electric motors and thus

adopt a 4-wheel drive configuration. The electric motors deliver improved traction and ensure full use of the potential of C-Métisse in all conditions and in complete safety.

Alongside the engine and motors, the drivetrain comprises a pack of high-voltage batteries supplying the electric motors. Positioned in the centre of the vehicle, the pack is recharged by the electric motors during deceleration phases, thus converting the vehicle’s kinetic energy into electric energy.

The drivetrain and braking control unit – the nerve centre of the system – automatically manages the energy configuration: transition from two to four-wheel drive, energy recovery and recharging of batteries.

Aerodynamics optimised to combine high standards of performance with respect for the environment

Special emphasis was placed on the aerodynamics and flowing design of C-Métisse, these being key



Citroën values. The objective was to enhance the vehicle's dynamics, road manners and performance while showing respect for the environment.

Limited weight for performance and fuel economy

Particular efforts were made to reduce vehicle weight in order to achieve both performance and fuel economy.

With its carbon body and

carbon trellis supporting the powertrain and front axle, C-Métisse weighs just 1,400kg, batteries included. A remarkable figure for a vehicle of this size.

The architecture of the diesel hybrid powertrain also contributes to this result. The positioning of the electric motors in the rear wheels and the position of the battery pack in the centre of the vehicle distributes the weight perfectly between front and rear, for improved road behaviour.

THE PARIS MOTOR SHOW

Far from being a gratuitous styling exercise, the forms of C-Métisse combine visual appeal with dynamic efficiency. C-Métisse boasts a Cd of 0.30 obtained by its taut, flowing lines, as well as by a series of innovative features such as the enlarged air intakes at the front, the flat underside of the car, the two retractable rear airfoils and the rear fixed-fin spoiler. All these features play an active role in reducing aerodynamic drag and lift, thus pushing the car to the ground and improving roadholding.



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A car of astonishing style and equally astonishing performance with its diesel hybrid powerplant, C-Métisse combines the concept of ecology with automotive emo-

0 to 400m: 14.2seconds
 0 to 1,000m: 25.4seconds
 0 – 100kph: 6.2seconds
 30 – 60kph: 1.9seconds
 80 – 120kph: 4.2seconds

Top speed: 250kph
 Combined consumption:

THE PARIS MOTOR SHOW

tions and sensations. Through its ability to challenge received ideas, it illustrates an objective long pursued by Citroën: to develop vehicles that reflect the spirit of the times, without losing sight of the essential – driving pleasure.

TECHNICAL CHARACTERISTICS

Dimensions

Length: 4,740mm
 Width: 2,000mm
 Height: 1,240mm
 Wheelbase: 3,000mm
 Gross vehicle weight [GVW]: 1,400kg [batteries included]

Performance and fuel consumption

6.5l/100 km
 CO₂ emissions: 174g/km
 Diesel hybrid drivetrain
 V6 HDi diesel engine developing 150kW [208bhp] with a DPFS and 6-speed automatic transmission
 Two electric motors in the rear wheels, each with torque of 400Nm and developing 15kW [20bhp].
 ZEV mode [range of 3km at 30kph]

Aerodynamic features

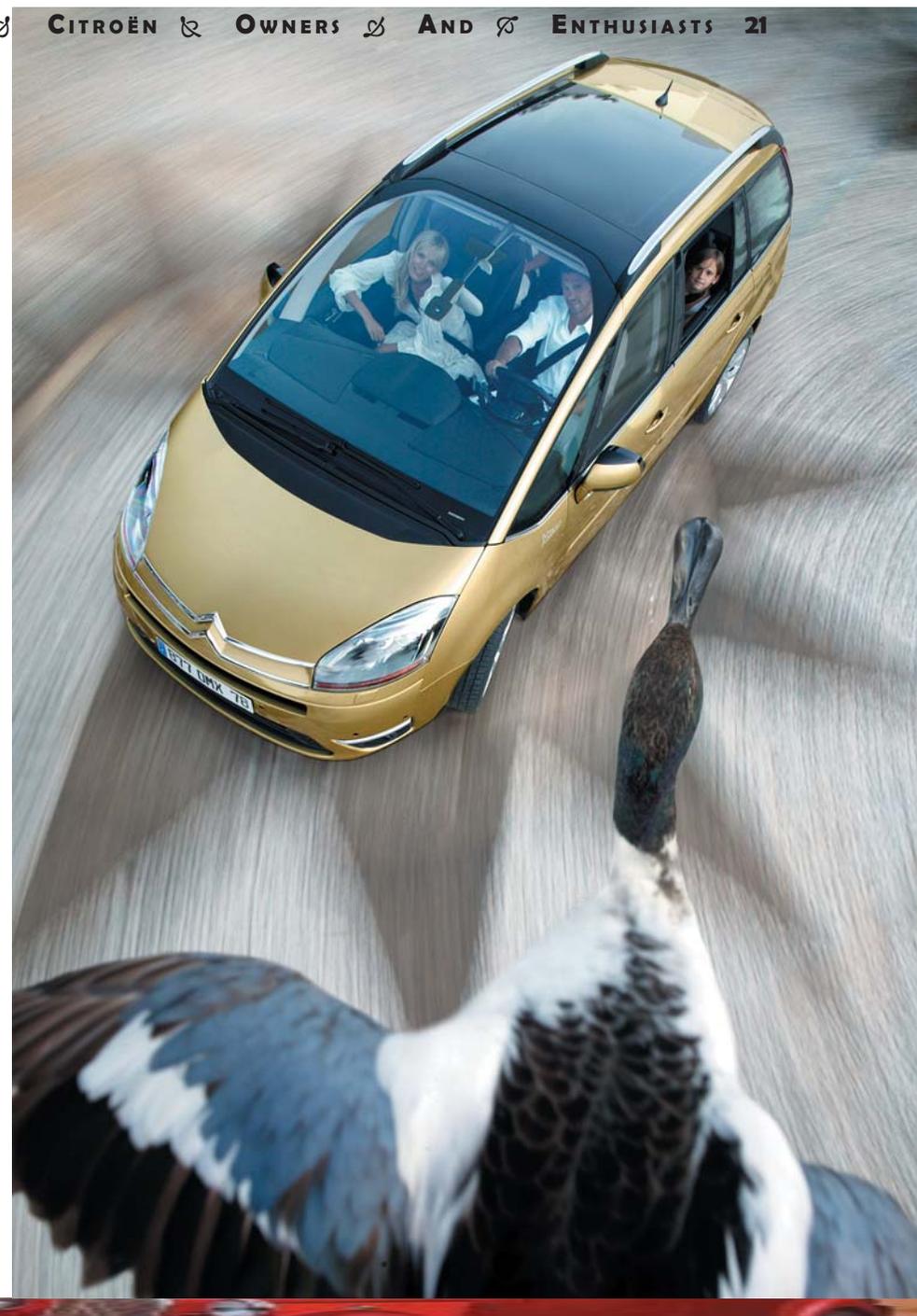
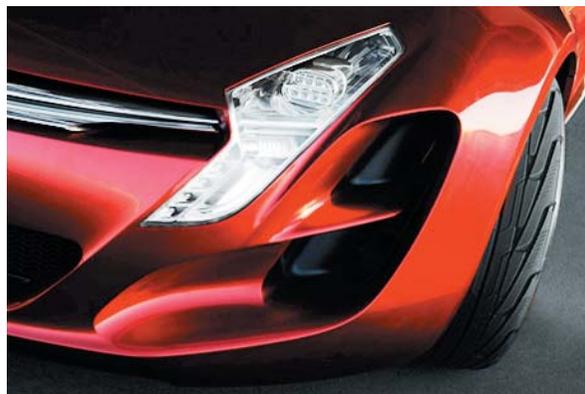
Flat underside
 Enlarged air intakes at the front
 Two retractable rear airfoils
 Rear fixed-fin spoiler
 Cd: 0.30
 CdA: 0.6m²
 Cl: - 0.1

Running gear

Hydraulic suspension
 Double wishbone suspension on all four wheels
 Special Michelin tyres: 255/40/R20

Main equipment

Fixed-centred controls
 steering wheel
 6-speed gearbox, manual mode



THE PARIS MOTOR SHOW



controlled by steering-wheel paddles, or fully automatic mode controlled by a selection lever on the central column
Directional headlamps

bastien Loeb will be driving in 2007 and the Citroën C4 Picasso what its customers will be driving when it is launched in Australia in 2007.

The Citroën C4 Picasso is clearly from the same styling team that has produced the C-Métisse, with its combination of versatility and unique style, while only Citroën's engineers could have provided such an advanced, safe and economical form of transport.

With its extensive glass area and vast modular cabin, the C4 Picasso becomes the first 'visiospace'.

The unique styling, driveability and original features of the C4

THE PARIS MOTOR SHOW

Electrically adjustable steering wheel and pedal assembly
Aluminium wheels with a central nut

Citroën has two other new stars for its line up at 2006 Paris Motor Show with the Citroën C-Métisse revealing the technology and designs that drives its engineers and stylists; the Citroën C4WRC revealing what World Champion Rally Driver Sé-



Picasso contribute to a comfortable and highly enjoyable ride. This new people mover can carry up to seven people in comfort. All vehicle functions have been designed to ensure an easy, pleasant and relaxed journey.

A wide-angle panoramic windscreen for outstanding visibility and clarity.

A front compartment of uncluttered design, with an innovative driving position and the new 6-speed electronic gearbox system.

Class-beating interior space and boot volume.

Original seat-folding functions for quick and easy reconfiguration.

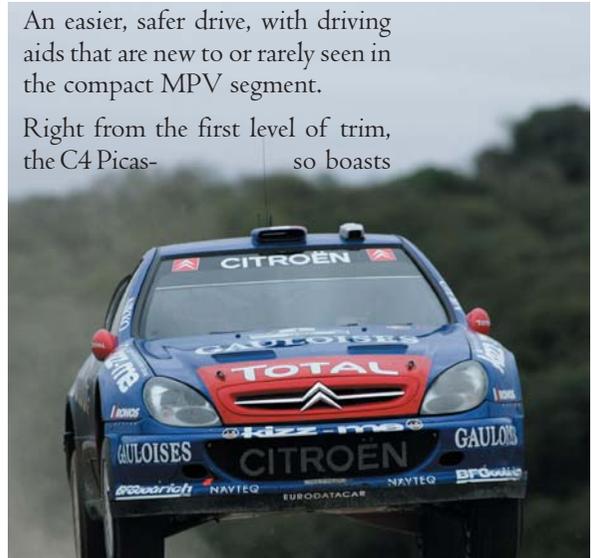
High standards of interior comfort for all passengers, with generous space and outstanding thermal,

acoustic and odour-exclusion comfort.

Remarkable suspension comfort with the pneumatic rear suspension.

An easier, safer drive, with driving aids that are new to or rarely seen in the compact MPV segment.

Right from the first level of trim, the C4 Picasso so boasts



new features for on-board comfort, along with driving aids and safety functions. Close attention has also been paid to the perceived quality of the passenger compartment. The

IV standards, and the two diesel units are equipped with a particulate filter as standard. Depending on the market, the engines are available with a wide choice of transmissions:

manual, automatic or the new 6-speed electronic gear-

box system.

With its strong personality, its dimensions [4.59m long, 1.83m wide and 1.66m high] and its attractive features, the C4 Picasso is a natural extension to Citroën's people mover range.

The Citroën C4 Picasso will join the Australian Citroën range in early 2007, when full local prices and specifications will be announced.



THE PARIS MOTOR SHOW

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.

Four responsive, high-performance engines are available from launch, two petrol: the 1.8i 16V and 2.0i 16V developing 127bhp and 143bhp DIN, and two diesel: the HDi 110DPFS and HDi 138DPFS. All engines meet Euro

SPARE PARTS FUND MEMBERS

For a one-off \$100 fee Spare Parts Fund members receive a 10% discount on spare parts.

Alain Antonious	Christian Ducasse	Max Lewis	Alec Protos
Graham Barton	Jon Faine	Rob Little	Darien Pullen
Grant Bartrop	Greg Fienberg	David Livingstone	Keith Radford
Andrew Begelhole	John Fleming	Brian Love	Chris Reid
Wyn Boon	Eric Forster	Dominic Lowe	Phillip Rogers
Peter Bourne	Jason Glenn	Peter Lowrie	Barry Rogers
Peter Boyd	Bill Graham	Iain Mather	Warren Seidel
Peter Boyle	John Greive	Ian MacDermott	Robert Shackley
Ron Brookes	Ruth Harrison	Graeme McDonald	Peter Simmenauer
Roger Brundle	ND Harwood	Andrew McDougall	Lois Smart
Peter Brown	John Hawke	Mark McKibbin	Robin Smith
Greg Bunting	Peter Holland	Leigh Miles	Lelvin Stribley
Mel Carey	Alan Hurst	Laurie Moers	Bruce Stringer
Gerry Carson	Keith James	Michael Molesworth	Barry Teesdale
Denton Christie	Jean-Pierre Jardel	Derek Moore	Mark Vickery
Jeff Cox	Roshan Jayasinghe	Dave Morrell	Brian Wade
Doug Crossman	Fred Kidd	Ronald Murray	Rod Ward
Adelino da Silva	Rob Koffijberg	Mike Neil	Hughie Wilson
Serge Doumergue	David Law	Richard Oates	

Citroën in the temple of British motoring? The idea was put forward by a representative from Beaulieu who was touring Alsace in the winter of 2004-2005.

When the C4 was launched, the Schlumpf Collection at

the Musée Français de l'Automobile in Mulhouse [where the C4 is built] housed an exhibition of '30 Brilliant Citroëns' and it was this that led to the Art Of Citroën exhibition at Beaulieu. On 3rd September, the Citroën Car Club, Traction Owners Club, 2CV GB and the Citroën Spe-

cial Club held a meeting at Beaulieu where the photos were taken.

In the vast entrance hall, a C6, Citroën's new standard-bearer, reigns supreme. A ring of jewels offsets

the Marque's new flagship vehicle: an antique prototype 2 CV from 1939, a right hand drive Traction Avant from 1952, dubbed the Light 15 and manufactured in Slough and two DSs. The first is a 1961 model with daffodil yellow bodywork that took pride of place last year at the

CITROËN AT BEAULIEU



event organised to mark the 50th anniversary of this unrivalled car at the Cité des sciences et de l'industrie technology museum in Paris. The other DS, from 1967, is a doorless

future by its heritage, Citroën is a living legend. The Art of Citroën, showing until mid March 2007 at the National Motor Museum at Beaulieu, two hours' drive southwest of London, is a regal showcase of design and innovation.

CITROËN AT BEAULIEU

model, which enables visitors to sit inside the dream machine and imagine they are taking off. The enchantment continues with the C Airdream concept car, star of the 2002 Paris Motor Show. Behind the vehicles, a wall of screens shows old films and commercials. Propelled into the

The commemoration of the living legend of Citroën is a key attraction for the museum's 400,000 annual visitors. This highly original institution seems to have come straight out of a typical English picture book. Nestled in the New Forest national park, a stone's throw from Bourne-



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mouth and Southampton, the Beaulieu estate has maintained its timeless English style. Dominated by the Victorian Gothic architecture of Palace House, the ruins of a 13th

the Montagu family purchased the Beaulieu Estate. More than four and a half centuries later, the Montagus are still living there. In 1952, the historical property gained an unlik-

ly addition: the Montagu Motor Museum, a memorial to

Britain's motoring achievements. Lord Montagu of Beaulieu intended the museum as a homage to his father, a motoring pioneer in Britain. A tad eccentric? The family estate is anything but Citizen Kane's impregnable Xanadu. Here, visitors are welcome.

CITROËN AT BEAULIEU

century abbey lie in the rolling English garden. The abbey was founded in 1204 when King John, brother of Richard the Lionheart, carved a portion from William the Conqueror's New Hunting Forest and gave it to a brotherhood of Cistercian monks. In 1538,



In the space of a generation, the museum acquired such renown inside and outside Britain that in 1972 it was awarded the title of National Motor Museum. The

permanent collection deserves the honour, with thousands of documents and objects related to this largely Anglo American industry, as well as 250 vehicles. The vintage



collection includes cars that have gone down in history, including world record breakers like the 1920 Sunbeam 350HP, the 1929 Golden Arrow and the 1964 Bluebird. This

the permanent collection made way for the Xsara WRC in which Sebastien Loeb won his second consecutive drivers' world championship title in 2005. Coordinated by the Citroën

UK subsidiary, which designed a competition and commu-

nications exercise at the museum, the exhibition is one of Citroën Heritage's main projects for this year. Lord Montagu of Beaulieu is the Patron of the Citroën Car Club in the United Kingdom.

The exhibition runs until May, 2007.

CITROËN AT BEAULIEU

consuming passion is expressed with diligence, like the meticulous reconstruction of a typical English garage from the 1930s. Keen to keep up with the times, the Beaulieu museum constantly adds to the collection. During the temporary Citroën exhibition, a 1997 ZX Rallye Raid from

The Citroën Classic Owners Club of Australia developed and published its policy on discrimination and harassment almost a decade ago. It has

their membership of CCOCA or attendance at an event.

Such behaviours are banned under Club policy and Australian law.

They can expose Club members to

traumatic legal actions.

Discrimination, harassment and victimisation can happen unintentionally because standards of behaviour are changing rapidly. Behaviour which some might have 'put up with' in the past can actually be unacceptable and even unlawful.

DO NOT MAKE MISTAKES. THE LAW MAY NOT ALLOW FOR THEM.

DISCRIMINATION & HARASSMENT

been determined that we should take the opportunity to re-publish the policy.

CCOCA'S POSITION IS FIRM.

Any form of discrimination, harassment or victimisation is unacceptable ethically within CCOCA.

When people experience discrimination, harassment or victimisation they cannot enjoy

PERSONAL DIFFERENCES ARE PROTECTED BY LAW.

Anti-discrimination laws provide for 'bottom-line' guidelines on respecting important personal differences.

Treating people differently, and to their disadvantage on the basis of these personal characteristics [the 'grounds of discrimination'] can breach anti-discrimination laws.

The personal characteristics protected by law are:

- Sex,
- Pregnancy/potential pregnancy,
- Race, ethnic background and nationality, and that of a relative or associate,
- Parental status/family responsibilities,
- Marital/de facto status/identity of spouse,
- Sexuality/sexual preference,
- Disability [past, present, possible future or imputed, and that of an associate or 'carer' or involving a therapeutic aid, for example a guide dog for a blind person, wheelchair, or a hearing aid etc],
- Age,
- Political or religious conviction,

- Irrelevant criminal record,
- Social origin.

CCOCA'S OBLIGATIONS

Any member, or member's guest, attending any CCOCA event has a right to be present without discrimination, harassment, victimisation or vilification.

These behaviours can be against Australian law if they are based on the grounds listed above.

CCOCA will take reasonable steps to prevent these behaviours and to protect its members, and member's guests, from these behaviours.

Reasonable steps include

- clear policy
- role modelling by Committee members
- fair, safe help-processes which allow members to seek advice, information and assistance.

As CCOCA has no legal liability in this area the legal and financial liability can transfer to any member, or member's guest, who breaks these laws.

**DEFINITIONS
OF UNLAWFUL
DISCRIMINATORY
BEHAVIOURS**

DISCRIMINATION & HARASSMENT

☞ DIRECT DISCRIMINATION

...any action which specifically excludes a person, or a group of people, from a benefit or opportunity, or significantly reduces their chances of obtaining it – because of a personal characteristic, irrelevant to the situation, is applied as a barrier.

☞ INDIRECT DISCRIMINATION

...the outcome of rules, practices and decisions which appear to treat people equally and to be neutral, but have an adverse outcome for a group or an individual thus reducing a benefit or opportunity. Practices appear fair in form but are discriminatory in outcome.

☞ HARASSMENT

...any unwelcome or offensive behaviour or conduct which intimidates, humiliates or offends another person[s].

☞ VICTIMISATION

...‘pay backs’, retribution or intimidation associated with a discrimination complaint having

been made or even being possible. Protection against victimisation extends to actual or potential complainants, witnesses, supporters and those investigating/resolving complaints.

☞ VILIFICATION

...public acts which could incite, encourage or urge other to hate, have serious contempt for, or severely ridicule, a person, or a group of people because they are [or are thought to be] members of a particular group, and which has no justification in ‘free speech’.

POINTS OF HARASSMENT

☞ Harassment is any unwelcome behaviour or conduct directed at another person which makes them feel offended, intimidated or humiliated.

☞ Harassment becomes potentially unlawful when:

- it is based in whole or part on any ground of discrimination eg sex, sexual preference, disability or religion and
- a reasonable person would have anticipated it would offend, humiliate or intimidate another person.

INTENT IS IRRELEVANT UNDER LAW!

When it comes to the electrical system on a car, many people shake their heads in despair. Even experienced mechanics can shy away from electrical work for fear of the unknown.

While some components do use computers and advanced circuitry, solving most electrical problems just is not rocket science.

Using simple tools and some common sense, it is possible to diagnose and solve nearly all electrical problems quickly and easily. Among these tools are a test light, a voltmeter and a good understanding of electrical basics and common problems. However, when you go out to tackle an electrical problem, remember that the generalizations in this article may not apply to your car – you will be wise to consult a service manual for its specific electrical information.

GOLDEN RULES AND THE BASICS

There are several golden rules for solving problems with automotive electrical systems. Corrosion is the biggest reason for failure. Wires do not fail. Grounds, connections and individual components fail regularly. And in most cases, it is far better to repair a faulty factory circuit than to rewire it.

Corrosion is electricity's biggest enemy. Battery terminals, fuse blocks, sensors, switches, connec-

tors, and grounds are likely to fail because they are corroded. Cleaning or replacing these connectors will repair a great percentage of electrical problems.

TECHNICAL TALK

With most cars, the body and frame serve as one of the ‘wires’ that feed each circuit. Usually, the car body and frame serve as the negative side of each circuit [the ground], and the positive side of the circuit is fed with a wire. If a device is not properly attached to the body or frame, or the attachment point is corroded, the circuit is compromised and will not function properly. The first thing to do when a circuit fails is to make sure it is grounded properly.

Individual wires do not fail. Insulation may crack or burn off, but the wire will still conduct electricity. The only time a wire will fail is if it is physically damaged, cut or broken. Damage can usually be detected by following along the wiring loom and looking for cuts. If the outside of the loom is not damaged, it is safe to assume the wires inside are not damaged, either. If you suspect a bad wire, read on – wires do not just go bad, but connections do.

Connections at the ends of wires fail regularly. Sometimes, they break or come loose. Other times, they corrode. Factory wiring harnesses usually do not hide connections

under tape or other wrappings. When tracing a problem, follow the harness and verify that each connection is clean and functional.

Switches, sensors, light bulbs and

have a sharp point and an alligator clip at the end of an 50 to 100cm long wire. These lights are available for under \$15, so every toolbox should have one.

Another helpful tool is a voltmeter. Voltmeters come in

two flavours, digital and analogue. Each type has advantages and disadvantages, but either works well for diagnostics. Pick the type you prefer in the cost range you can afford.

Voltmeters are usually combined with other measurement features. One typical combination is the Volt/Ohm meter, which includes the ability to measure resistance of a circuit in ohms. The other typical combination is the engine diagnostic meter, which usually will measure dwell [for points ignitions], current [amps], and include a tachometer function. Volt/Ohm meters are available from under \$30 to much more. Engine diagnostic meters are more expensive – plan to spend at least \$80, and much more for a high-quality unit. If you have to buy just one meter, start with a cheap Volt/Ohm meter.

Get a few pieces of jumper wire with insulated alligator clips on the ends. It is a good idea to include an inline fuse in the jumper wire in case of mistakes or problems. A few wire brushes and a battery post cleaner should round out your electrical tools.

microprocessors are all electrical components that are susceptible to failure. Components with moving parts, that generate or receive heat, or that are exposed to water or other corrosives are the most likely to fail.

In almost all cases, it is better to repair a factory circuit than to re-wire around it. Adding circuits for new accessories is one thing, but do not change the way one left the factory. Most factory electrical systems, including much-maligned Lucas systems, were carefully designed by trained engineers and work perfectly well until corrosion or component failure sets in. Shadetree mechanics who wire around factory circuits usually do so out of a lack of understanding. They often take short-cuts or make mistakes that can be dangerous [read as 'will burn up a car'].

TOOLS NEEDED

Given these common problems, a 12volt test light is an essential tool to diagnose and trace an electrical failure directly to its cause. A quality test light looks like an awl with a light bulb in the handle and a wire sticking out of the top. It should

TROUBLESHOOTING BASICS

Before troubleshooting a circuit, check and clean the battery terminals and check all fuses. Make sure the battery is fully charged. If a fuse is burned out, do not just replace it and think the problem is solved. The circuit affected must be further tested to determine why the fuse burned out. More on that later.

After these preliminary checks, use the test light to test circuits as follows:

Check that the test light is working. Attach the alligator lead to a ground, and then touch the pointed end to the positive side of a circuit. The positive battery terminal or a terminal on the fuse box is good test points.

Test the positive lead at the device. Leaving the alligator lead attached to the same ground that was used to test the light, touch the pointed end of the light to the positive connection of the device that is not working. If the light glows, there is either a bad ground or bad device. If the light does not glow, trace the positive circuit that leads to the device using Step 4.

Test the ground at the device. Connect the alligator clip from the test light to the positive lead of the device, and then touch the pointed end of the test light to a bare metal portion of the device, to its ground strap, or to a bolt that attaches the device to the body or frame. Ensure that you

touch the pointed end of the light to bare metal, as paint or other coatings will not conduct electricity. If the light glows, you have power to both sides of the circuit and most likely, the device has failed. If the light does not glow, clean or replace the bolts, nuts or ground strap to the device. A wire brush and/or sandpaper can be very effective for this.

Test the positive circuit that leads to the device. Ground the test light's alligator clip. Test the light again to ensure the quality of the ground. Working backward from the device, follow the positive wire to its switch, sensor or source of positive current. Test the circuit at each connection along the way [i.e., each terminal block or snap connector]. If the light glows at each connection after the switch, suspect the switch. If the light stops glowing at a connection, clean or replace the connector.

Test a switch, if applicable. To test a switch, check that there is positive power to the switch by touching the positive lead on the 'input' side of the switch. If the light does not glow, continue to trace the circuit back to the fuse box or battery. If the light glows, touch the positive lead on the 'output' side of the switch. [A manual may be helpful here to show the location of these leads.] Move the switch through its range and see if the light ever glows. If the light does not glow, or glows in the wrong switch position, replace the switch. Occasionally, a

TECHNICAL TALK



switch can be repaired by spraying it with WD-40 or a similar lubricant/corrosion fighter. However, this is usually only a temporary fix.

Test a sensor, if applicable. To test a

some common sense. Of course, these are very general and may not work for some specific makes and models. If these do not work, consult a manual or an expert.

TECHNICAL TALK

sensor, microprocessor or other black box, refer to a manual for testing instructions for that specific item. This is one area where equipment that is more sophisticated is often needed. Alternatively, replace the sensor or item with a known working item. The latter method is not usually practical, as new electrical parts are generally not returnable and few people keep working spares.

If these steps do not help solve the problem, keep in mind that it could be multiple problems. For example, a device may suffer from a bad ground and a loose connection along the positive side of the circuit. Two or more simultaneous problems are much harder to troubleshoot than a single problem. If you are still stuck, keep reading about common problems and solutions, or consider turning the problem over to an expert.

COMMON PROBLEMS.

COMMON SOLUTIONS.

COMMON SENSE.

This set of problems and solutions is common to most cars, and dealing with them does not require a lot of specific electrical knowledge, just

DEAD BATTERY

Charge the

battery for at least one hour. Check for clean connections at the battery terminals, starter and grounds. Use the starter to crank the engine over five or six times. Attach a voltmeter to the battery and watch its reading as someone cranks the engine several times. The voltage should stay at 12 volts when the engine is not cranking. If the voltage drops below eight or nine volts while cranking, or the engine will not crank any more, suspect the battery. If you suspect the battery, and it is not very old, charge it longer and test it again.

SLOW BATTERY DRAIN

If the battery is draining overnight or over the course of a few days, some device is still turned on and draining it. To find the cause, disconnect the negative battery connection. Use your test light to jump the negative battery cable to the negative post on the battery. If the light glows, something is turned on. Disconnect fuses and/or circuits one by one until the light goes out.

Trace the circuit that was causing the light to glow to find which device is still on. Dome lights, trunk lights, alternators and non-fac-

tory accessory circuits are common causes of such drains. Usually, radio memories and dash clocks are not drains and will not make the light glow for this test.

ALTERNATOR OVER OR UNDERCHARGING

Attach a voltmeter to a good ground and a good positive lead. [Usually, the battery works best for this.] With the engine switched off, the battery voltage should read 12 volts. With the engine running, the voltage should read 13.5 to 14.5 volts.

Below 13.5 volts usually signals a non-working charging circuit. Check for a tight belt, and clean connections at the alternator and the battery. Also, make sure the engine is properly grounded.

Above 14.5 volts usually signals a bad voltage regulator. Either way, the solution is usually a new or rebuilt alternator.

CRANK STARTER, EVERYTHING GOES DEAD

Sometimes everything will seem just fine until you crank the starter, then nothing will work, not even the dome light. Starting with the battery terminals, remove them and give them a good cleaning. Then clean the ground strap to the body and to the engine. Then clean the positive connection to the starter. One or more of these connections is corroded. The load of the starter causes arcing at the corroded con-

nection, which weakens the connection. Since these connections are the main power connection for the whole car, they shut everything else down when they get too weak.

STICKING HEATER, ACCELERATOR, CLUTCH OR CHOKE CABLES

What does this have to do with electrical problems? Plenty. If the engine ground strap goes bad, the engine will seek another ground through these cables. Often, the car will run and start just fine. Over time, however, these cables will melt themselves to their housings. Replace the affected cables and clean or replace the engine ground strap.

DIM HEADLIGHT

Sometimes, one or both headlights will be dim. One of the headlights has a bad ground and is grounding itself through the other headlight. In doing so, the headlights change the wiring configuration from parallel to series. When wired in series, they each share half the voltage and glow dimly. Clean or replace the ground[s].

BRAKE LIGHTS TURN OFF TAILLIGHTS

This is a variation on the dim headlight problem. A bad ground is causing the brake lights to ground themselves through the taillight circuit and vice-versa. Clean up the grounds, and everything will work fine.

TURN SIGNAL PROBLEMS

When a bulb burns out, most turn signals will either flash quickly or not at all. Sometimes, they do so even though all bulbs appear to be

on the circuit and see if its use blows the fuse. If you still do not find the problem, check a manual or consult an expert for testing each device and ensure each device is in spec.

TECHNICAL TALK

working. Other times, they may flash, but very slowly. If both left and right circuits act the same, suspect the flasher unit or the switch. If only one side has a problem, corrosion is at work. The solution is to first check and clean all the grounds, which often requires removing lamp assemblies to clean the bolts and attachment points with a wire brush. Sometimes, the base of a bulb will corrode, and simply replacing the bulb will solve the problem. Other times, the bulb socket is corroded and should be cleaned.

BLOWN FUSE

Finding the cause of a blown fuse can be difficult. A component in the circuit is either dead-short to ground, or is causing too much load on the circuit. If something is dead-short, fuses will blow the instant they are replaced and the circuit is turned on.

Physically search the wiring in the circuit, and then disconnect components attached to the circuit one by one until you find the short. If something is generating too much load, the diagnosis is similar, but more difficult. Try to isolate any device

INTERMITTENT PROBLEMS

Intermittent

problems are the hardest to solve. If you cannot get the problem to happen while you are looking for it, shake the car or the wiring harness and see if that causes it. Loose or corroded connections are common causes for intermittent problems and such shaking will often bring them about. If you still cannot solve it, call in an expert.

WIRING ADDITIONAL CIRCUITS

First and foremost, follow the accessory manufacturer's instructions. However, many instructions suggest wiring directly to the battery to ensure a good power supply. Avoid this if possible. First, see if there is an available accessory circuit in the factory wiring that can handle the necessary current. Many factory systems have extra accessory circuits and fuses built in for owners to expand. If you still want to wire directly to the battery, make sure you have a fusible link, fuse, or circuit breaker as close to the battery as possible. Also, avoid the self-resetting circuit breakers since they may reset before you know there is a problem. This article by Carl Heideman first appeared in Grassroots Motorsport magazine in January 2005.

Some of our members may have heard of the efforts Richard Kennedy from Tasmania has gone to having 'D' series gearshift rubbers reproduced, see attached photo. These components part number DV856-124

are for the right hand drive models. Previously, only the left hand drive part DV856-123 has been available from Europe. Most right hand drive cars have a ragged rubber in this position unless the owners have, like me, adapted a left hand drive component that still does not fit properly but certainly looks better than most. The Club has purchased 50 of these parts for members and will sell them for \$20 each: this is a much cheaper price than anywhere else they are offered [they can be found on the Aussie Frogs website]. Quantities will be limited and anyone wanting to purchase commercial quantities should call me and I will do my best to accommodate them. A special thanks to Richard for completing this task and I would like to welcome him to the Club as he is intending to join us, he is also restoring a 'D' Safari.

I am currently working with a drive line engineer in Bendigo to once again have CV joints fitted to Traction drive shafts. I hope this will be completed in time for the next magazine. Our previous supplier does not want to do them any more as the numbers were obviously

insufficient. This time I have quite a few members interested in this modification, so give me a call if you want to be added to the list.

We recently purchased a job lot

of ID parts. At the moment I am working on forming a list of parts with prices that I hope will be in the next magazine. The parts are as diverse lot – ranging from suspension units and height correctors to a roof seal and many other parts including steering components. Please note, these are all red fluid parts.

I have even spoken to our good friends at Arden Continental in Birmingham, England. They are still as confident as ever that one day we will see the hub caps that we ordered! At the moment they have some Big 6 hub caps at the platers for us and will send them all together when they return, I expect Hell may be frozen over by then, but at least they are still speaking to us.

Rob Little

**SPARE NEWS**

ACCOMMODATION MADE SIMPLE

We have made searching for accommodation simple. The local tourist

CIT-IN '07 - MANSFIELD

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 are available from 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

CCCV Website: www.citcarclubvic.org.au

CitIn Website: http://www.cit-in2007.info/ is up and running and will provide regular updates on the Event.

FOR SALE

1951 TRACTION AVANT 11BL.

My car is now for sale after nearly 35 years of ownership. She is 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 [like all French Traction] water marked and the front seats which are not finished but the original French material to complete them is provided. Seat covers are presently in place. 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, except for the selectors which need adjusting, and front end had new silentblocks fitted after the engine was done and reconditioned driveshafts. Needs a wheel alignment. The car is painted Volvo light [mid] blue which is as close as I could get to a pre-war Traction colour. Spare parts that come with the car include several gearboxes complete with cw&p, NOS bell housing, a complete unrestored engine, engine block, heads, mudguards, doors, seats, radiators, wheels, drive shafts, cardan shafts, gearbox parts,

FOR SALE

carbies, rare roof rack, rare original toolbox, workshop manual, brake parts, gear linkages, speedos, windows, starter motors, generators, headlights, lenses, steering parts [rack, pinion etc], suspension parts, handles, bootlids, spare wheel covers, engine stands, gearbox stand etc Boy, you sure collect a lot of stuff over 35 years of ownership! 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. Reason for sale? Well after 35 years I am finally getting tired of the old girl but know that 5minutes after she has gone I will be having second thoughts. 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!! Asking \$12,000. Contact: Carl Perrin, Ph\ fax [08] 9386 3268, 04 1247 2527 [M], email kaycarl@efte1.net.au. Additional photos available. [30/03]



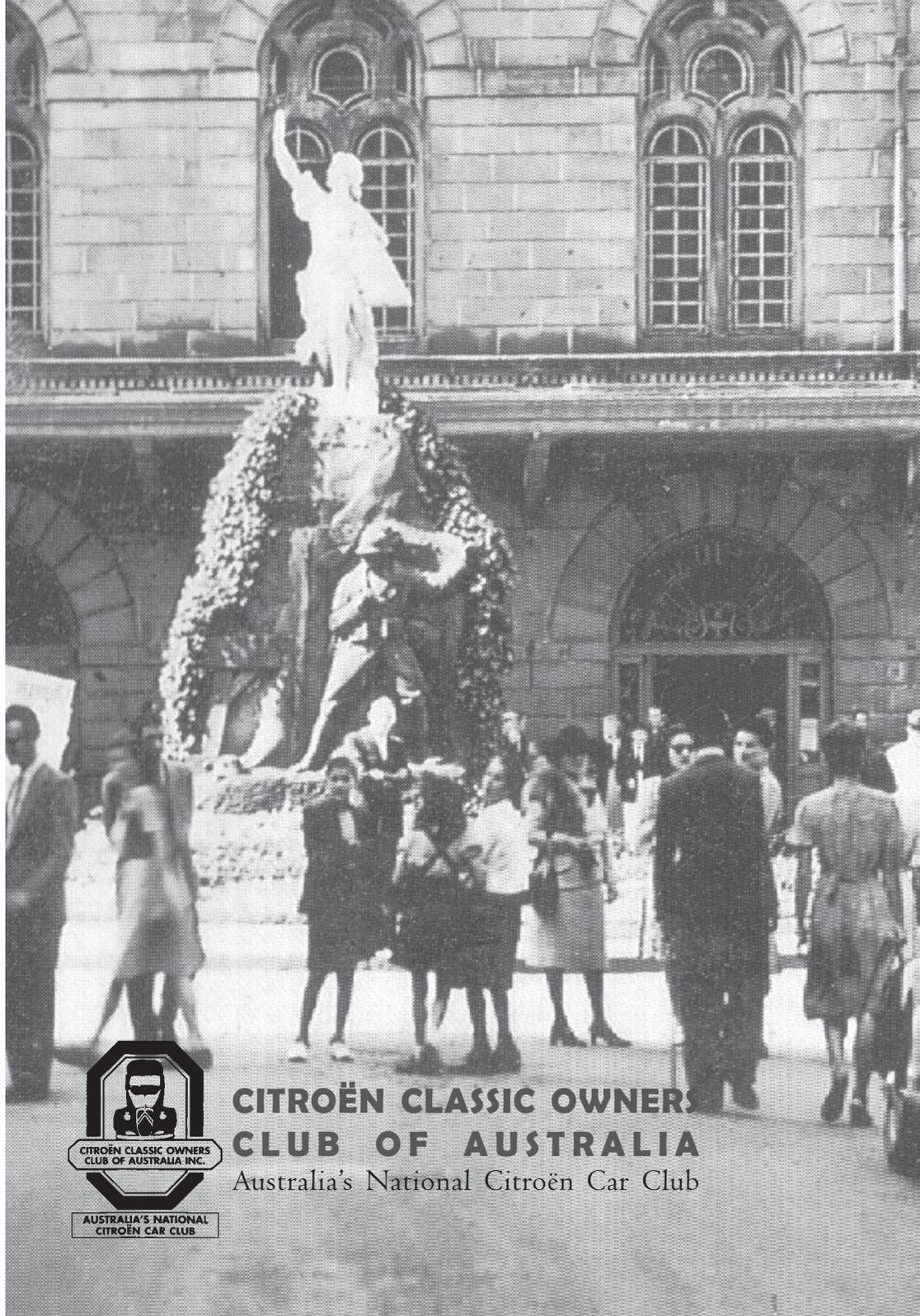
WANTED

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]

D SERIES TAILGATE

Tailgate [upper, or less importantly the lower too] for D series Safari. I have one on the car, but I'm after a better one to take back to the metal. Please ring Dominic on 04 1222 5720 or [03] 9417 6108 [not after 9pm]. [30/4]



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