

# 30 YEARS OF 2CV



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Front Drive

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Volume 2, Number 3  
August / September 1978

*Registered for posting as a periodical category B*

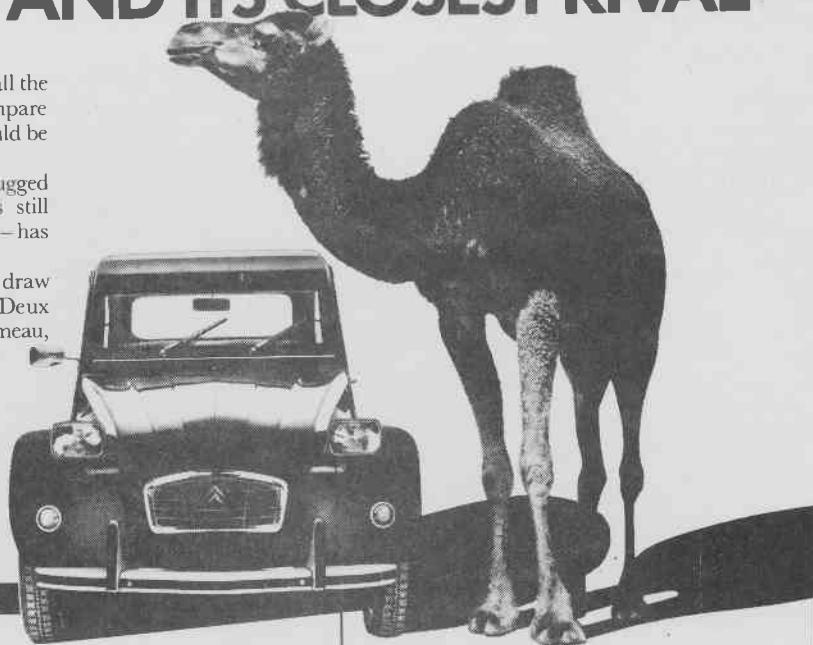
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# A COMPARISON BETWEEN THE CITROËN 2CV AND ITS CLOSEST RIVAL

Comparison advertising by car makers is all the rage, so we thought we'd have a go. Why not compare the 2CV with other cars, you ask? Well, that would be unkind. To other cars.

No, our nearest competitor – in terms of rugged transportation, economy, reliability, numbers still being built and generally endearing personality – has to be the camel.

So, gentle reader, compare carefully, and draw your own conclusions. When you see what the Deux Chevaux has to offer compared with Un Chameau, it's no small wonder the camel has the hump.



PERFORMANCE	2CV	1 CAMEL
Fuel consumption.	49.6 mpg (5.7 L/100 km) at a constant 56 mph (90 kph). 40.9 mpg (6.9 L/100 km) simulated urban driving.	6 miles per kilo of thorn-bush at a constant 3 mph.
Top speed.	68 m.p.h.	30 m.p.day.
Water consumption.	Nil (air-cooled engine).	5-7 gallons a day.
Suspension.	All-independent. Hydraulic shock absorbers. Very comfortable, even on long journeys.	Leave your false teeth at home.
Seating.	4 very comfortable seats.	1 desperately uncomfortable seat.
Upholstery.	Hard-wearing vinyl.	Slightly fly-blown camel-hair.
Boot space.	Roomy: 9.3 cu. ft.	None (luggage has to go on the roof rack).
Transmission.	Front-wheel drive.	A good thump on the backside.
Steering.	Rack-and-pinion ("Reassuringly responsive" – 'What Car', June 1975).	Rein-and-bit ("Inclined to back bite" – 'What Camel', June 1977).
Sunshine roof.	Yes. But this one closes too.	Yes.
Wheels.	15 in. fitted with long-lasting Michelin X radial tyres. If you have a blowout, use the spare.	Four legs. All tire. If a leg breaks, shoot the camel.
Price.	£1,647 (Delivery £56.16 and number plates extra).	For you, effendi, a youngish daughter, plus ½ cwt. of salt.

**CITROËN 2CV**

Price correct at time of going to press. Price includes car tax, VAT and static seat belts, but excludes number plates and delivery charges. All Citroën cars have a 12 month unlimited mileage guarantee. Please enquire about our Personal Export, H.M. Forces and Diplomatic schemes and Preferential Finance scheme. Check the Yellow Pages for the name and address of your nearest dealer. Citroën Cars Ltd., Mill Street, Slough SL2 5DE. Tel: Slough 23808.

**Volume 2, Number 3.  
August/September 1978.**

The magazine of the Citroen Classic Owners' Club of Australia.

Front Drive back issues - \$1.00 each.

CCOCA membership:

Joining fee for new members \$5.00.

Full membership \$15.00

Associate membership \$10.00

Joint membership is available to

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All membership applications to secretary.

CCOCA meetings are held at 8 pm on the first Wednesday of each month except January, at the Blackburn Baptist Church, 19 Holland Road, Blackburn.

The CCOCA committee:

President: Andrew Rankine

130 Artherton Road, Northcote 3070

Ph. 489 7635

Secretary: Mark Navin

1 Alexander Street, Box Hill 3128

Ph. 89 8576

Treasurer: Pat Propsting

18 Bellara Drive, Mooroolbark 3138

Spare Parts Officer: Alan Thomas

36 Hedge End Rd., Mitcham 3132

Ph. 874 2302

Activities Officer: Roger Brundle

12 Barkly Avenue, Armadale 3143

Ph. 509 0441

Editor: Kym Harding

26 Tyrrell Avenue, Blackburn 3130

Ph. 877 4853

**Next General Meeting:**

**Wednesday, August 2**

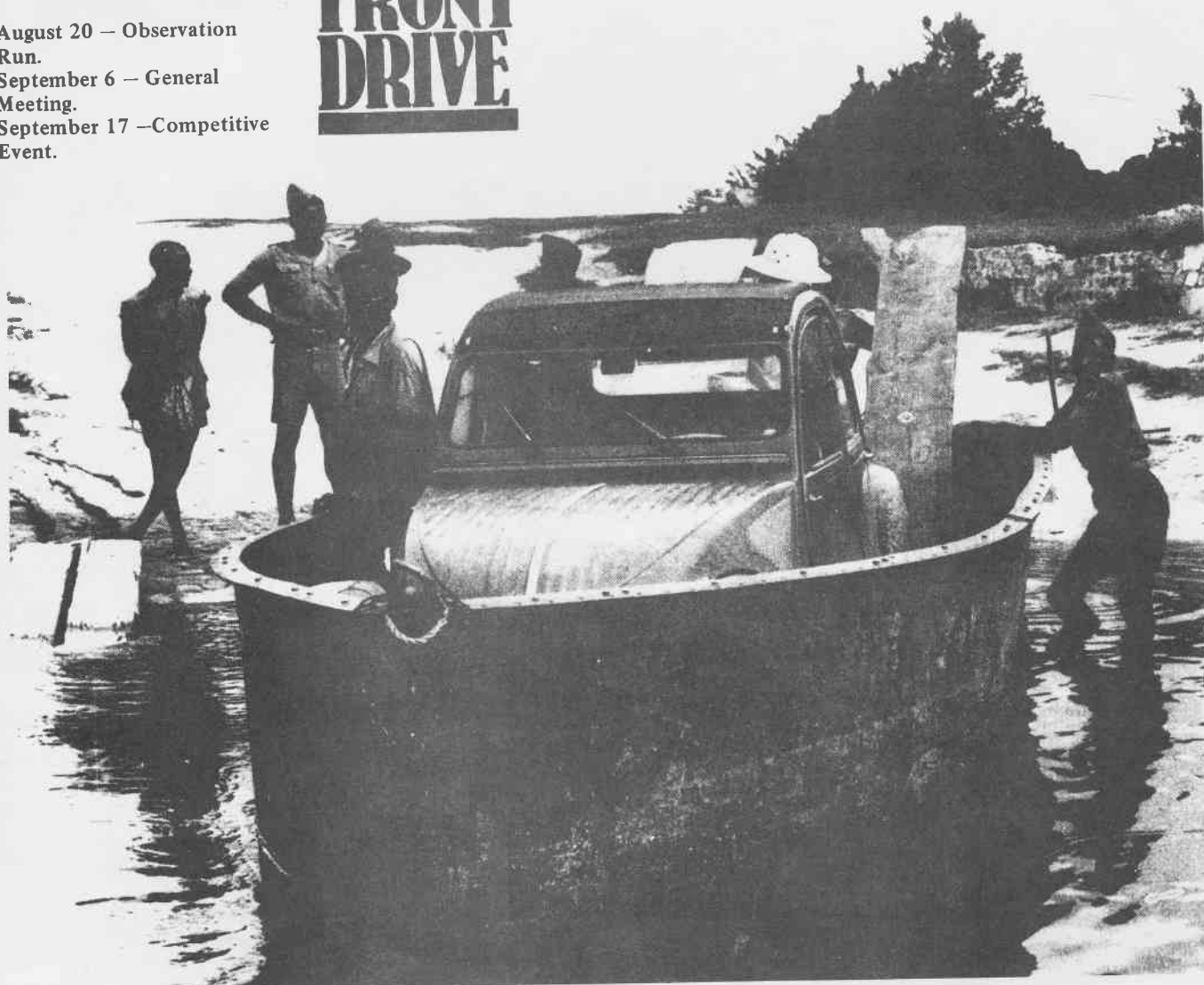
**at Blackburn Baptist Church, Holland Road, Blackburn, 8pm.**

**August 20 — Observation Run.**

**September 6 — General Meeting.**

**September 17 —Competitive Event.**

A 2CV owner had the misfortune to see his car crash from a crane lifting it off a boat in some remote place into five metres of murky water. No matter. The hook was reattached, the car lifted out, dried out, dents booted out, and off he went to finish driving around the world. A 2CV is almost an anti-car. Other 'People's Cars' are so mundane in comparison — the Volkswagen, T-model Ford, the Mini. Anyone who talks about the 2CV without a smile on his face just doesn't understand the 2CV. The raging insanity called a 2CV is a brilliant and unlikely way of building a small car, and there's nothing else like it! A 2CV is nothing like any other Citroen, yet it could only be a Citroen. Will they still be making the 2CV in another 30 years time?



Perhaps the best way to celebrate 30 years of 2CV is to put together a photo-collage, a sort of 2CV scrap book, to give a picture of what the 2CV is, and has become.

It is globetrotter, rally-cross car, draft-horse, moving van, all-terrain vehicle, fun-car, shopping jeep. Is it a tractor built like a Swiss watch, or a Swiss watch built like a tractor? People paint them, strip them, make toys out of them, make them into miniature chalets, put Rolls-Royce grilles on them, cut them in half, write books on them, and do all sorts of crazy things in and with them, but the more outlandish the deed, the more the 2CV character shines through. Anti-Car? No, four wheels never meant so much!

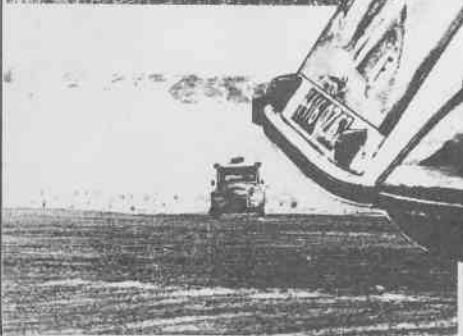
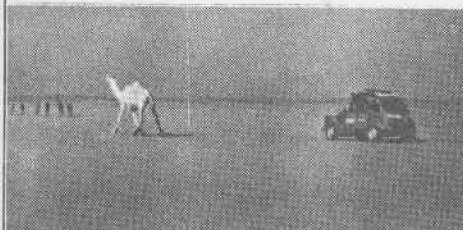
# 2CV SCRAPBOOK

At first, the thought of a 2CV as a round-the-world transport seems undisguised lunacy, in the same vein as trying to circumnavigate the globe with a pair of water-wings.

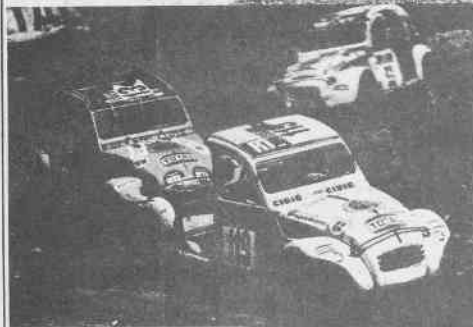
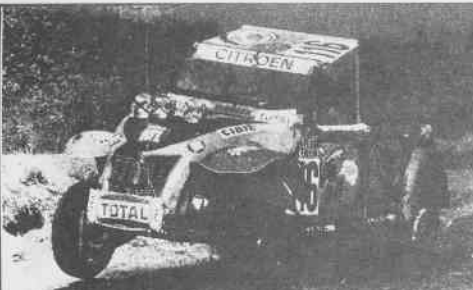
But when you start looking for another vehicle to suit all the practicalities of this kind of travel, it's very hard not to put the 2CV at the top of a very short list. It will go almost anywhere a Land Rover can (the Sahara will do more), glide over rocks and corrugations in complete comfort, cross a whole country on an eye-dropper of petrol, and if it does break down you can put it in your pocket and carry it until you find someone with a wire coathanger to fix it.

It would be impossible to recount all the round-the-world-with-a-2CV adventures or marathon cross-country journeys that started as a trip down to the corner shop and just kept going!

Just in case, if you have a 2CV, it would be wise to carry a copy of the book published by Citroen, called 'Ici Commence L'Aventure'. Every year, Citroen offer a 10,000 franc prize for the most interesting round the world trip in a 2CV.







A most unlikely competitor, the 2CV has an impressive list of achievements. In 1953 a 2CV made the Guinness Book of Records for the highest altitude for a car, by driving up Mt. Chacaltya (17,780 feet) in Bolivia. Until 1971, Citroën awarded 10,000 francs for the most deserving long-range journey in a 2CV or derivative. A typical winner was the owner of a 2CV van bought for \$60, which had already done 155,000 miles, and during the round the world trip did another 70,000.

The Deux Cehvaux, as French as the Eiffel Tower, has gained such an international reputation that it is known under many names — Blue Jeans Car (USA), Motocar Yapotopoto (car that will go through mud - Congo), Ugly Duckling (Holland), and here in Australia, Flying Sheds.

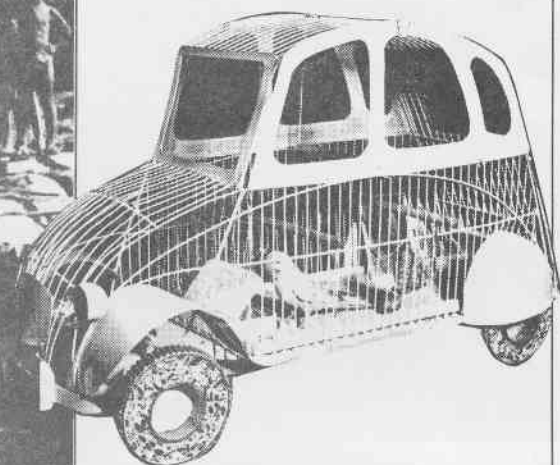
There are a number of clubs catering specifically for the 2CV. The Dutch club is reputed to have 10,000 members! The Finnish club is organised very like lodges of groups like the Freemasons. A new member graduates through the ranks by a series of achievements in the ownership of his 2CV, e.g., mileage covered in a year, countries visited, etc.

Every two years there is a meeting of the '2CV Friends'. The first, in 1975, was in Finland; the second, in 1977, was at Avenches, Switzerland, and 500 2CV's attended. In 1979, the 2CV Friends will meet in Denmark. What about an Australian contingent?

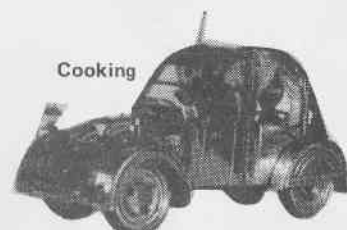
The 2CV and derivatives have been produced in 11 countries, and nearly 6 million have been made.

Why is the vehicle called '2CV'? The name derives from 'Chevaux Vapeur' (CV), the French rating for horsepower. It literally means 'Steam Horse', and the original '48 model was 2 units, hence 2CV— easy!

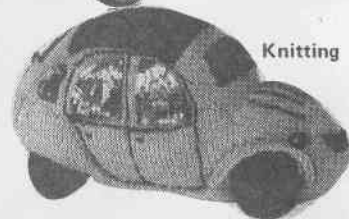




From a competition held by a Swiss Citroën dealer for a model of a 2CV, to be constructed in materials depicting the hobby of the maker. Over a thousand entries were received.



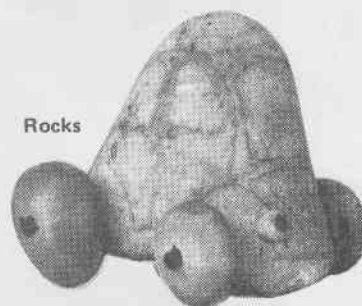
Cooking



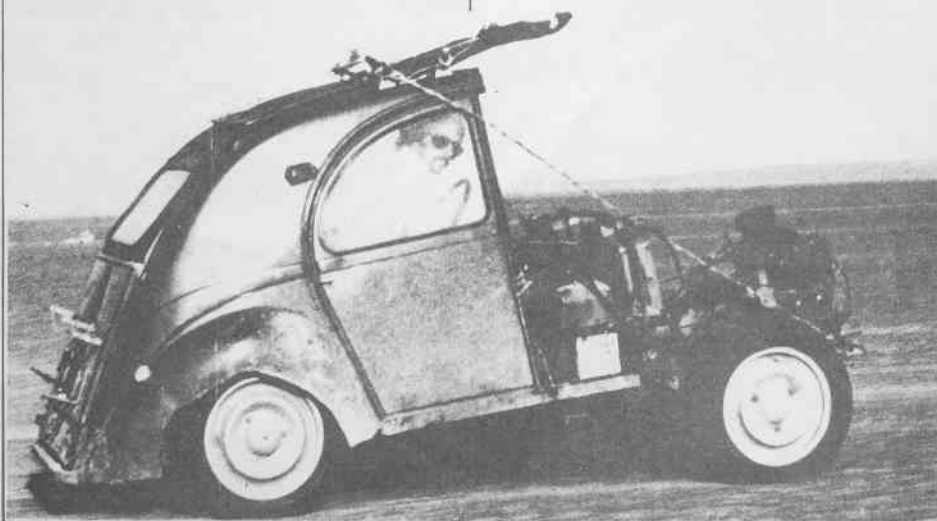
Knitting



Bread



Rocks



Citroen, for a number of years, have organised 2CV 'Raids' (long distance runs):

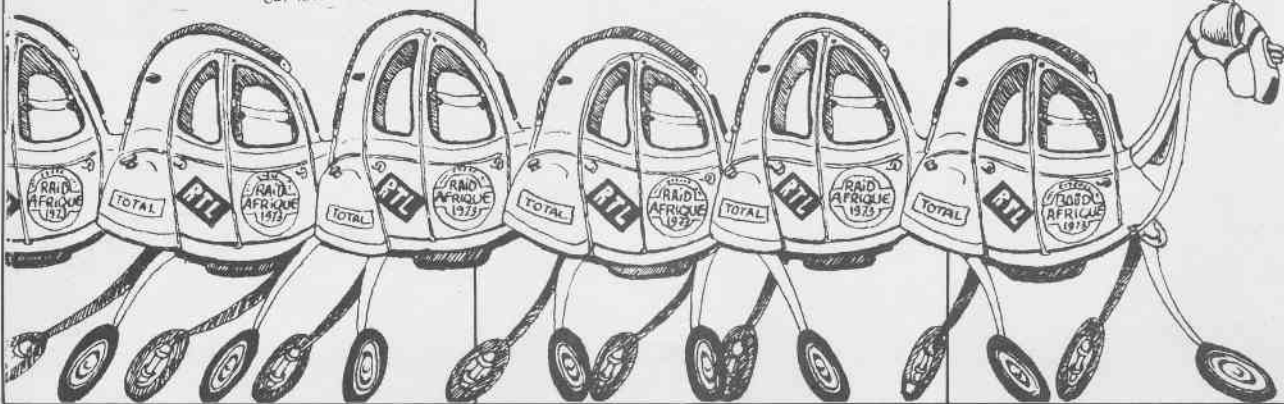
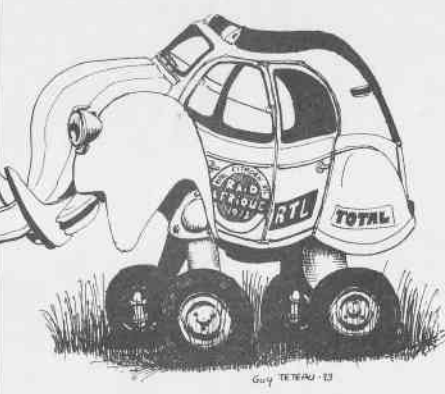
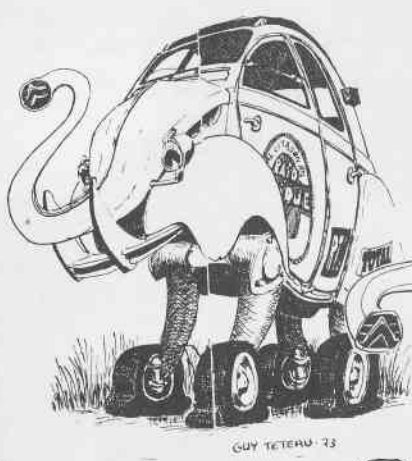
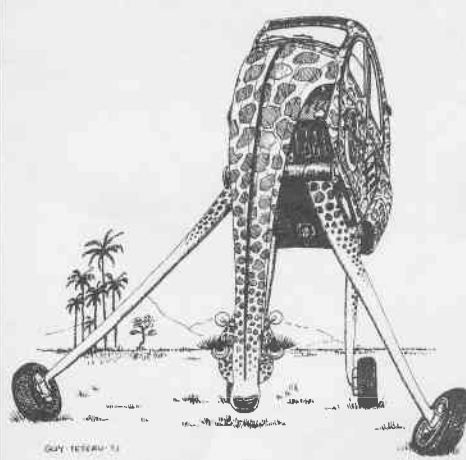
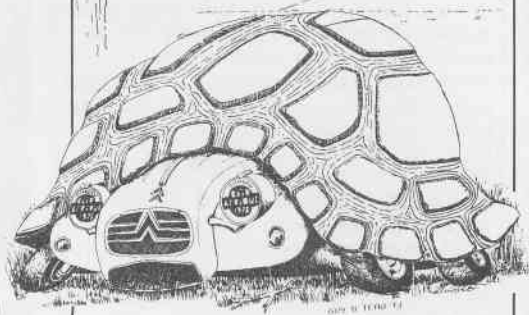
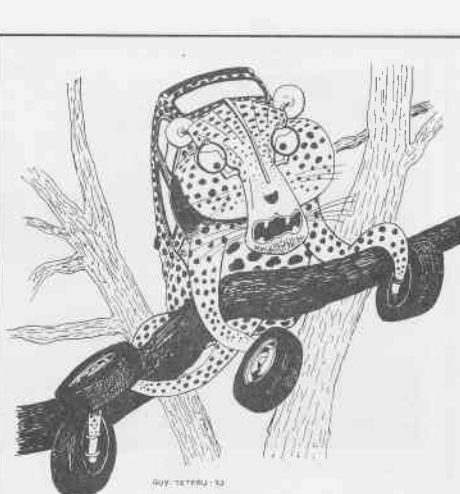
1970 - Paris-Kabul-Paris. 10,000 mile 500 started, 320 completed within the time limit.

1971 - Paris-Persopolis-Paris. 8,700 milés, 500 Started, competing for a GS as first prize.

1973 - Raid Afrique - 4,200 applicants, 100 people selected. There were 60 2CV6, Dyanes, AK Vans, and Berliet 4 x 4 trucks to cross the Sahara - 5,000 miles.

1978 - Raid Maroc - still to be run.

These cartoons were commissioned for the 'Raid Afrique'.





## 2CV VARIATIONS

1936—Guidelines laid down for the future 2CV — the people's car.

1939—250 prototypes ready for Autumn Motor Show (Paris) which was never held.

1948—2CV officially released at Paris Motor Show: 375cc, 2-cyl, 65mpg, max. speed 40mph, 9hp.

1954—425cc model with centrifugal clutch and light van/utility introduced. 12hp.

1958—Two-engined 2CV 4X4 Sahara version available, 24 hp.

1960—Bijou introduced: 2-door fibre-glass body on 2CV rolling chassis.

1961—Ami 6 3CV 602cc engine (22hp)

1963—25 hp for Ami 6, 18hp for 2CV.

1964—Ami 6 Estate available.

1967—Dyane 4 (425cc 21hp)

1968—Dyane 6 (602cc 28.5hp) and introduction of Mehari, with plastic body. Ami 6 power up to 35hp, new 435cc motor for Dyane 4.

1969—Ami 8 replaces Ami 6: fitted with front disc brakes. M-35 prototype being tested — basically a 2 door Ami 8 body with a single-bank rotary engine.

1970—2CV4 (435cc, 24hp) and 2CV6 (602cc, 28.5hp) replace 2CV. Dyane 4 replaced by Dyane 6 with 602cc and 32hp.

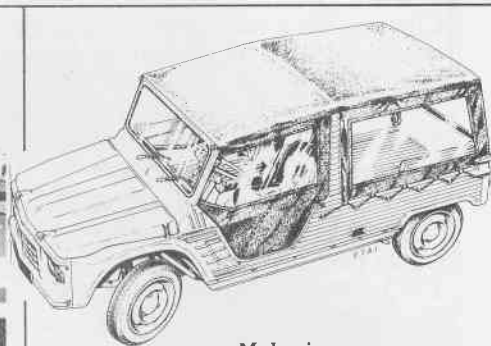
1973—Ami Super introduced with 1015cc 55hp GS engine (6CV)

1976—602cc LN introduced—joint venture with Peugeot.

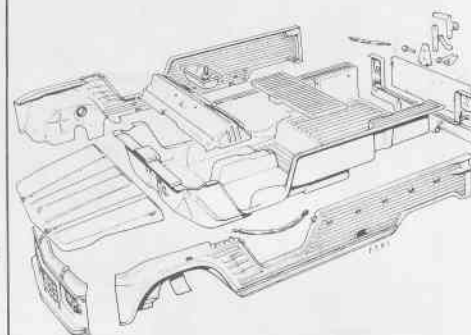
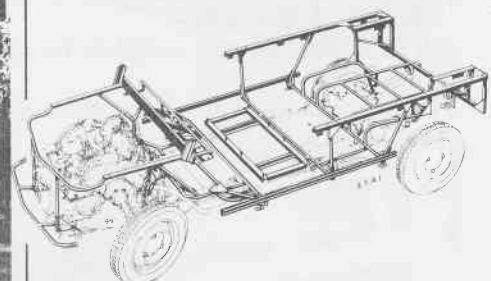
1978—Van version of Dyane introduced, 'Arcadienne'.



Bijou, built at Slough.



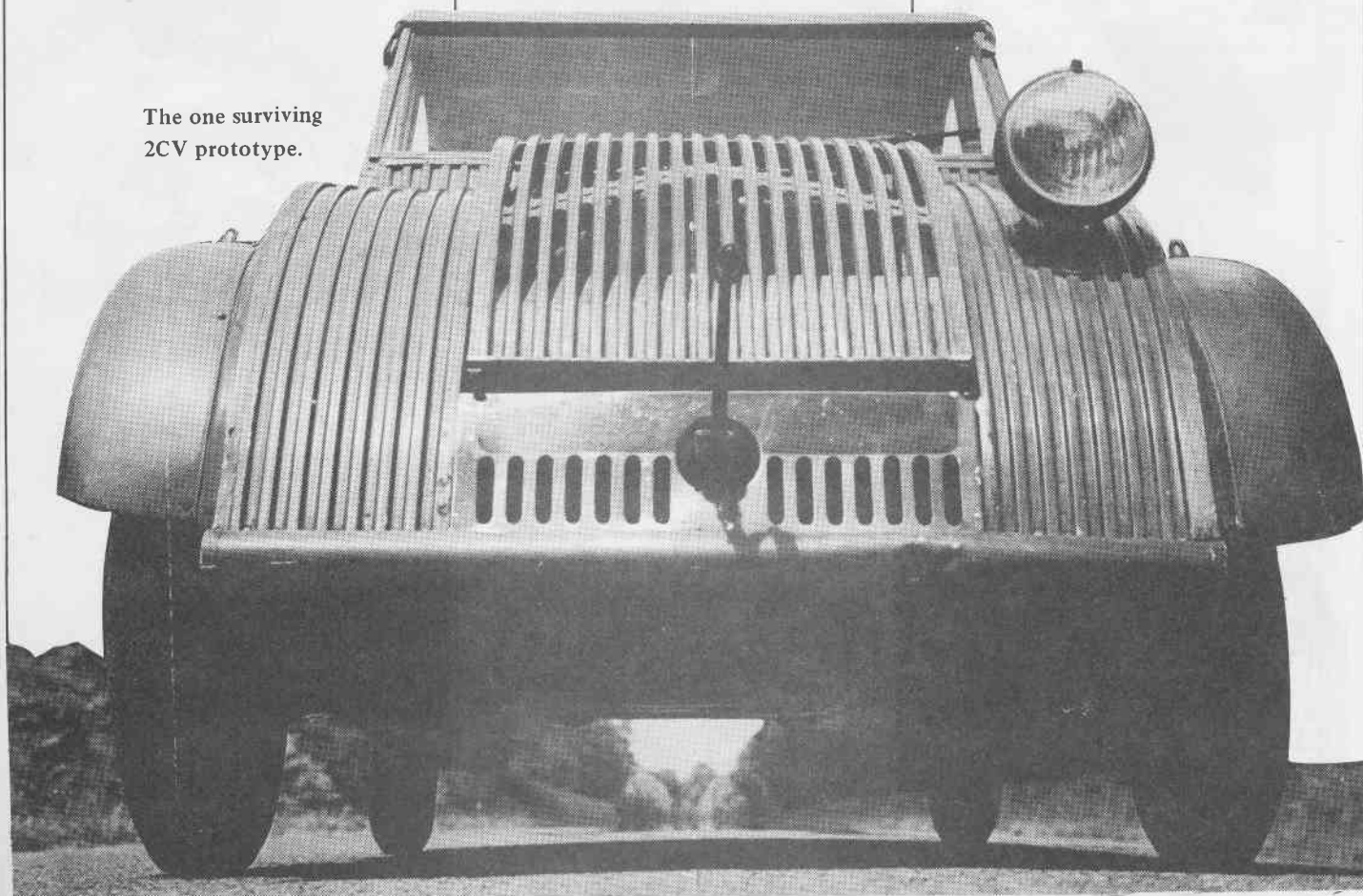
Mehari



M35 Prototype



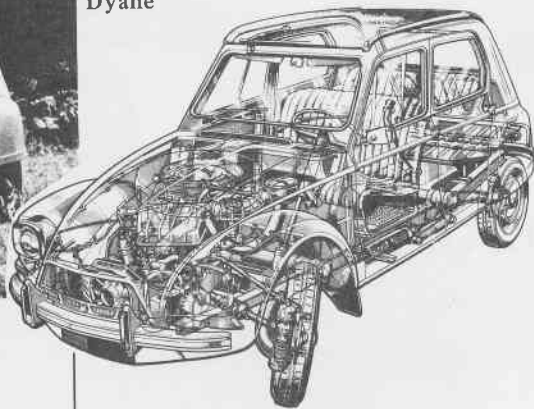
The one surviving 2CV prototype.







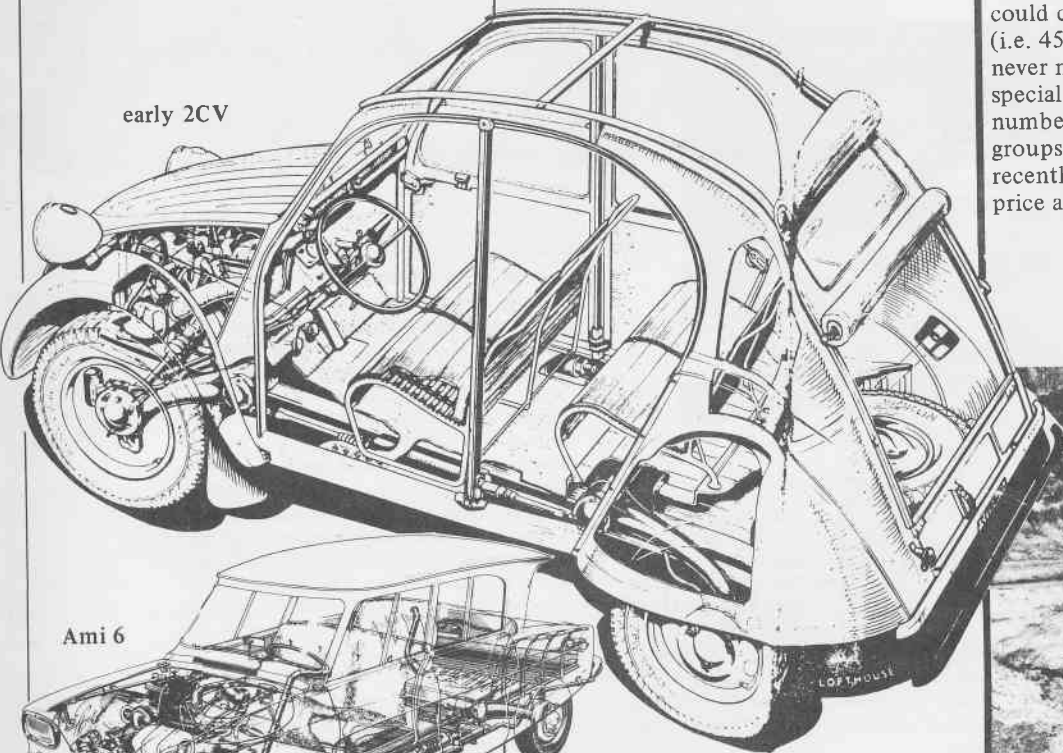
Dyane



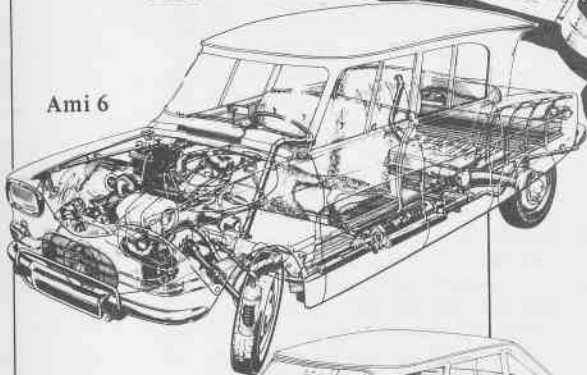
The Sahara 4 x 4 is the most interesting of the 2CV derived vehicles. Given a contract by an oil company undertaking exploration in the Sahara, Citroën needed to develop a vehicle that was robust, easy to repair, could carry a reasonable payload and would go anywhere. In fact there was not much development needed, because for 10 years the 2CV had proven to be all those things.

Starting with a great car, they made it even better. An extra engine and gearbox was attached to the rear axle, the crown wheel was reversed, the gear linkages extended, the clutch made hydraulic and Voila! — four wheel drive. The design was so effective that fully loaded, the vehicle could climb a 1 in 2 sand gradient (i.e. 45° slope). The Sahara was never mass produced but was available on special order or was supplied in limited numbers to military and paramilitary groups. I believe the Spanish police recently auctioned 80 of them, average price about \$300!

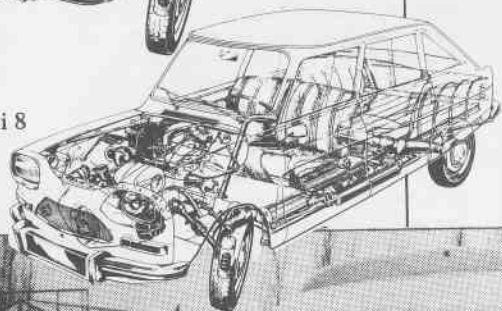
early 2CV



Ami 6



Ami 8



Sahara



Acadiane



# The Citroen 2CV (Type AZ) Cabriolet

Livelier Performance and  
Easier Driving in a Functional  
Small Car



ANYTHING GOES for the small Citroen, which is completely at home on rough country tracks, has no radiator to freeze, but started instantly after the coldest of nights during our test.

but it is the work of moments only to undo one catch and remove the rear seat completely, and the front passenger seat lifts out even more readily, so that jobs such as (an example during our test) moving the crockery for a party of over 100 people are easily tackled. As an incidental, almost any panel of the body can readily be removed by unfastening a very few bolts or screws, a front mudguard being quickly detached for example to permit easier photography of the very accessible power unit.

Comfort features are also by no means lacking inside the body of a British-assembled model, the folding canvas roof of which was not opened during our wintry test but proved totally impervious to rain and snow when closed. Two shutters can be opened to admit to the lower part of the body interior air which has been warmed by passage over the engine cylinders, the amount of heat provided varying with driving conditions but being very welcome. Turning a knob opens to any desired degree another shutter from which cool fresh air blows up over the windscreen interior, providing de-misting in many conditions and giving the occupants of the car truly fresh air to breathe. The four doors have windows of which the lower halves hinge upwards and outwards, being secured slightly open if desired. Twin windscreen wipers driven by the speedometer cable (at a rate of 93 strokes per mile) can also be operated manually. The spotlight which illuminates the speedometer at night

**A**MONG all the carefully recorded data which appears on the opposite page, there is one item which tells a great deal about the latest twin-cylinder Citroen 2 CV. An overall petrol consumption of 49.7 m.p.g. for a distance of 1,210 miles shows not merely that this is an unusually economical car even when driven hard in and around London, but that in midwinter numerous members of our staff gladly ran up a big mileage by taking every opportunity to use this low-powered and ultra-simple four-seater for both short and quite long journeys.

In appearance and general layout, the Citroen 2 CV has changed little since our last test report was published on December 30, 1953, but inconspicuously it has been vastly improved in a good many details. As hitherto, an air-cooled flat-twin engine drives the front wheels, the platform-type chassis has a unique layout of all-independent wheel springing, and the bodywork has been designed for comfort

and usefulness with little regard for appearance. There has been an increase in engine size from 375 c.c. to 425 c.c., however, with other detail changes to provide a more than proportional increase in power output, and a simple centrifugal clutch has been added to the transmission so that stop-go driving does not require use of the left foot.

As the photographs show, the Citroen 2 CV makes no claim to good looks, but is comfortable and very practical indeed. It has seats for four people, each seat comprising a tubular frame across which flexible strands of rubber are stretched to support the plastics upholstery, a form of seat which is light and unusually comfortable although it precludes any attempt to seat a fifth person. The floor is completely flat, knee, foot and headroom are very generous in front and fully adequate behind, and elbow width is fully adequate. The luggage capacity of the space reached through the rear locker door is substantial,

## In Brief

Price: £398 plus purchase tax £200 7s. 0d.  
equals £598 7s. 0d.

Capacity ... .. 425 c.c.

Unladen kerb weight ... 10½ cwt.

Fuel consumption ... .. 49.7 m.p.g.

Maximum speed ... .. 47.2 m.p.h.

Maximum top gear gradient 1 in 21.3

Acceleration:

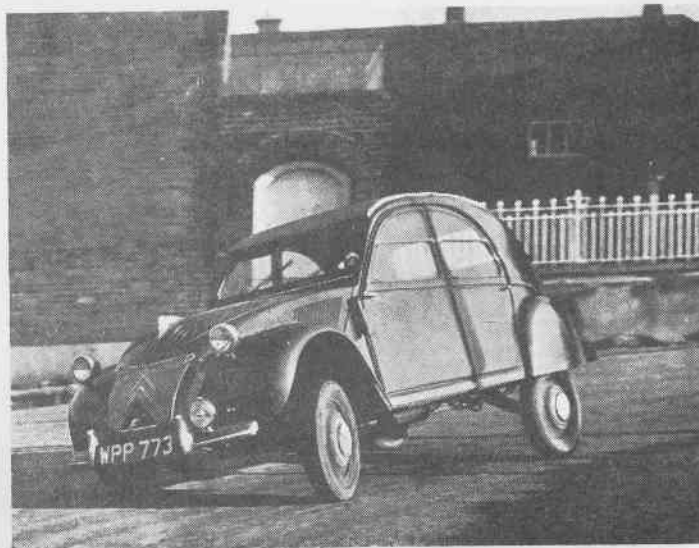
10-30 m.p.h. in top ... 30 sec.

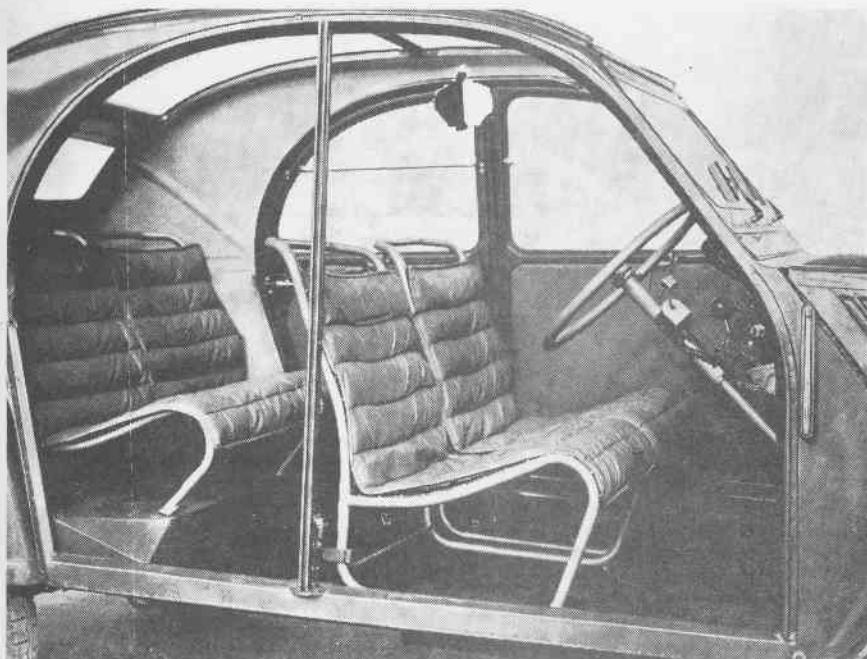
0-40 m.p.h. through gears 27 sec.

Gearing: 11.9 m.p.h. in top at 1,000 r.p.m.

29.2 m.p.h. at 1,000 ft. per min. piston speed.

EXTENDED by abnormally fast negotiation of an adversely cambered corner, the suspension system shows the range of travel which allows rough surfaces to be negotiated in exceptional comfort. The "radiator" muff to improve heater effectiveness is a standard item of equipment, but the foglamp is an extra.





Reprinted from "The Motor," January 25, 1956

go-anywhere car, the Michelin tyres gripping well in mud or snow—if all else fails, this model can, when unladen, be reversed up altogether abnormally steep and slippery hills which would defeat an orthodox saloon, not exhibiting the strong reverse-caster effect on the steering which makes this emergency procedure impracticable on some heavier front-drive cars. Suitability of this model for unmade roads or for use across country is emphasized by suspension which is abnormally flexible and permits astonishingly large wheel deflections without "bottoming."

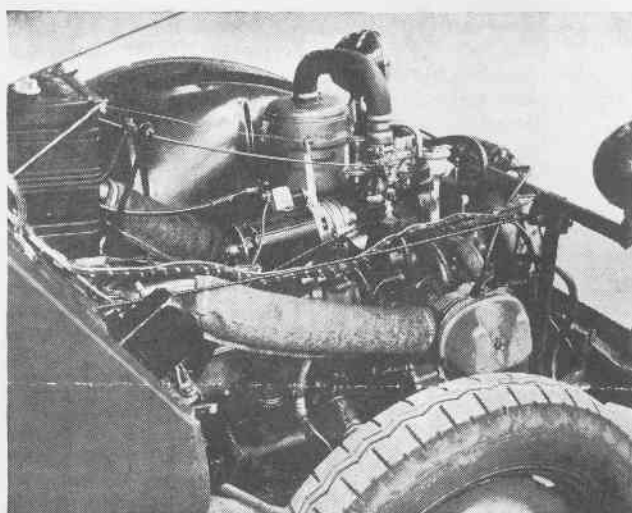
Weighing only 10½ cwt., the small Citroën has performance characteristics which vary greatly with the number of passengers carried—two 12-stone men add 3 cwt. to the load. For testing, two men

SIMPLE in appearance, the interior features exceptionally comfortable hammock-type seats below which parcels may be stowed, all seats being instantly removable if a bulky load is to be carried. Two of the four doors have been lifted off their hinges in this picture, and the folding roof opened.

also becomes an interior light when its case is twisted to open a side aperture. The lights and horn are controlled by the usual extremely convenient Citroën switch on the steering column, and a control below the parcel shelf allows the headlamp mounting bar to be rotated to correct for full-to-empty changes of car trim or to deflect downwards the double-dipping headlamps (of rather below average power) in foggy weather. Semaphore direction indicators are cancelled by a pneumatic time switch. There is no fuel contents gauge, but a low-level warning lamp supplements a dip-stick in the rear tank.

In snow, wet or cold, the Citroën always started promptly after standing out of doors overnight, a spring returning the choke control to its warming-up halfway setting so soon as the knob was released, and the engine quite quickly settled down sufficiently for its tick-over to become reliable although slow and smooth. With the centrifugal clutch, starting the car merely involves engaging a gear and pressing the accelerator, it being unnecessary to declutch or disengage the gear when stopping. The car will start away in any gear, and our in-the-gears acceleration figures were recorded from a standstill in 3rd gear and even in the overdrive 4th ratio, leisurely starts in 2nd gear being quite normal although 1st gear gives a much better getaway. The gearbox synchromesh is so smoothly powerful that, with the clutch pedal used, there seems to be no limit to the speed of gearchanges, and it is even

TWIN air cooled cylinders are used for the power unit, easily accessible normally but seen here with a front wing removed by undoing three bolts. Ducts carry warm air from the fan-cooled engine into the body interior.



possible, with a modicum of skill, to make silent clutchless changes of gear, although due to flywheel inertia they are rather slow. First gear is not synchronized, but if it is needed on a very steep hill the lever can be pushed into position at the low speed involved without any need for double declutching. The centrifugal clutch makes it impossible to stall the engine, although steep gradients do upset the otherwise excellent tick-over.

Marks on the speedometer dial suggest that changes out of and into the lower gears are made at 10, 22 and 37 m.p.h., it being possible on occasion to exceed these speeds substantially. The margin of power available for acceleration in top gear is very small, this being referred to by the makers as an "overdrive" and the "gate" being arranged so that it can only be reached through 3rd gear; normal practice is to use 3rd gear to accelerate up to any desired cruising speed, this ratio being by no means fussy until 35 m.p.h. is exceeded.

Despite its low power and front-wheel drive this is very much a

and a heavy box of test instruments were aboard, as is our usual practice, the car being noticeably livelier and quicker up hills when driven solo, more sluggish when fully laden. Nevertheless, it can be said that with the Citroën a driver in a hurry overtakes more people than overtake him. Driving solo on a cross-country journey from the Midlands to East Anglia, a run of rather over 100 miles was completed at an average speed of over 34 m.p.h., with a fuel consumption of fractionally better than 55 m.p.g. In one sense it may be said that the cruising speed on open roads is anything between 35 m.p.h. and 45 m.p.h., but it is in fact normal to drive flat out when the going is good, there being no sign of distress if speeds between 50 and 60 m.p.h. are sustained downhill.

Although soft springing permits an unusual amount of body roll during fast cornering, this is, nevertheless, a car which invites quite enterprising driving. The rack and pinion steering is quick and precise, moderately light, and with castor action marked (on either drive or over-run) at cruising speeds although not when moving slowly. On slippery surfaces (which included snow and ice during our test) the stability and road holding is remarkable and a cruising speed well above that of most traffic can be sustained when



SEASONABLE loading of the rear boot with Christmas luggage did not involve any overflow into the passenger space.





**PLAIN** in appearance, but comfortably furnished, the Citroën has ample ground clearance, rendered more effective by an almost completely flat underside without vulnerable projections.

conditions are really bad. The brakes squeak sometimes, but are powerful and showed no signs of wear in nearly 2,000 miles.

The soft suspension already mentioned gives this light car riding comfort over unmade or broken-up surfaces which compares well with the best luxury car standards, there being no bottoming or bumping at 35 m.p.h. over rough farm tracks. On made-up roads, the suspension still shows up to advantage by giving a totally shock-free ride, although the slight amount of damping used allows a slow resonant rise and fall to build up sometimes on an unlucky series of road undulations. Nevertheless, this unique suspension with its front-to-rear interconnections deserves high praise, and will appeal especially to rural dwellers all over the world, rear seat riding being almost as shockproof as the front seat ride.

It will be noted from the maintenance data on a previous page that the number of lubrication points on this car is unusually small, and accessibility for maintenance appears to be good. The underside of the body is almost completely smooth, the silencer which on some cars is apt to be damaged on rutted tracks being in this case under the bonnet with its outlet flush with the undertray—no fumes appear to penetrate the car interior. Ignition components on the nose of the crankshaft are fairly low, but fast negotiation of pools of water did not cause the slightest sign of misfiring. One simplification, the use of Hooke's-type universal joints instead of a constant velocity design, has the unfortunate effect of introducing transmission-

snatch on full-lock turns if the clutch is not slipped, and there was a vibration period at around 20 m.p.h. in any ratio which was especially annoying if a long, steep hill was being climbed in 2nd gear.

Ultra-light cars do not by any means always live up to the standards of fuel economy which are expected of them, some simple power units being apparently none too efficient. In this instance, however, an overall consumption figure of virtually 50 m.p.g. (on commercial grade fuel) needs to be qualified by the statement that it covered a lot of use in London traffic, a certain amount of exploration of tracks rarely used by cars, and much full-throttle driving with free use of the gears. The steady-speed consumptions which rise to over 75 m.p.g. at a 20 m.p.h. potter suggest that a great many owners are likely to average 55-60 m.p.g. with a car of this type.

Designed originally for country rather than town dwellers, the Citroën 2CV shows up best away from good roads. Nevertheless, comfort, ease of driving, compact overall width, and performance which is now by no means contemptible made it also a surprisingly popular London and suburban runabout when it was available to members of our staff, the twin-cylinder engine although far from inaudible having a much more comfortably leisured "beat" at cruising speeds than have small four-cylinder engines. Despite a price reflecting the import duty which must be paid on components brought to the British factory from France, this latest version of the 2 CV Citroën is obviously a sensible "buy" for a significant number of British motorists.

## Mechanical Specification

### Engine

Cylinders ...	Flat twin, air-cooled
Bore ...	66 mm.
Stroke ...	62 mm.
Cubic capacity ...	425 c.c.
Piston area ...	10.6 sq. in.
Valves ...	Inclined pushrod o.h.v.
Compression ratio ...	6.2/1
Max. power ...	12 b.h.p.
at ...	3,500 r.p.m.
Piston speed at max. b.h.p. ...	1,420 ft. per min.
Carburettor ...	Solex downdraught
Ignition ...	Duplex cc i
Sparking plugs ...	Champion H.9
Fuel pump ...	Mechanical
Oil filter ...	Gauze on pump

### Transmission

Clutches ...	Single dry plate and centrifugal clutches in series
Top gear (s/m) ...	1.7
3rd gear (s/m) ...	1.4
2nd gear (s/m) ...	12.55
1st gear ...	25.9
Propeller shaft ...	Nil (front drive)
Final drive ...	8/31 spiral drive
Top gear m.p.h. at 1,000 r.p.m. ...	11.9
Top gear m.p.h. at 1,000 ft./min. piston speed ...	29.2

### Chassis

Brakes ...	Lockheed hydraulic
Brake drum diameter: ...	
Front ...	7.9 in.
Rear ...	7.1 in.
Friction lining area ...	60.9 sq. in.
Suspension: Independent front and rear, by inter-connected leading and trailing arms with coil springs in compression below centre of car.	
Shock absorbers: Positive "potter" dampers on wheels, and friction damping on suspension arm pivots.	
Tyres ...	Michelin, 175 400

### Steering

Steering gear ...	Rack and pinion
Turning circle between kerbs: ...	
Left ...	32½ feet
Right ...	32½ feet
Turns of steering wheel, lock to lock ...	7½

### Performance factors (at laden weight as tested):

Piston area, sq. in. per ton ...	15.15
Brake lining area, sq. in. per ton ...	87
Specific displacement, litres per ton mile ...	1,540

## Coachwork and Equipment

### Bumper height with car unladen:

Front (max.) 17½ in., (min.) 10½ in.
Rear (max.) 21½ in., (min.) 18½ in.

Starting handle ...	Yes
Battery mounting ...	On scuttle
Jack ...	Bevel type
Jacking points ...	Two on each side of body, external

Standard tool kit: Jack, wheelbrace, chock, radiator muff, starting handle, dipstick, two double-ended spanners, box spanner, screw-driver, pliers.

Exterior lights: 2 dipping headlamps with pilot bulbs, 2 tail lamps, number plate lamp.

Direction indicators ... Semaphore type, self-cancelling

Windscreen wipers: Two-blade mechanical, driven from speedometer cable, with handle for manual operation if required.

Sun visors ... One, universally pivoted

Instruments: Speedometer with non-trip non-decimal distance recorder; ammeter.

Warning lights ... Low fuel level

Locks:

With ignition key ... Ignition, driver's door and luggage locker

With other keys ... Nil

Glove lockers ... None

Map pockets ... None

Parcel shelves ... Full-width across fascia

Ashtrays ... One (front)

Cigar lighters ... None

Interior lights: One above windscreen (serves also as speedometer light).

Interior heater: Fresh-air type (also separate intake of cold air for screen de-misting).

Car radio ... No

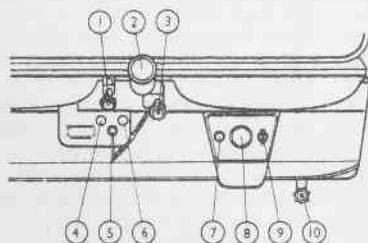
Extras available ... Fog lamp

Upholstery material ... Plastic

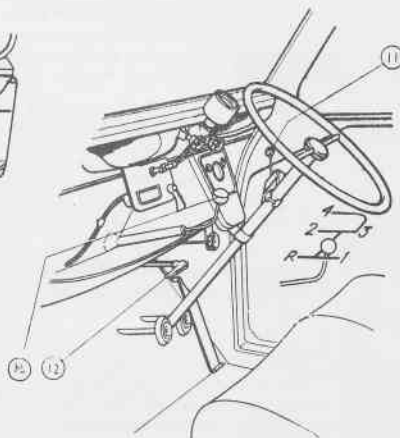
Floor covering ... Rubber

Exterior colours standardized ... Red or grey

Alternative body styles ... Nil



1. De-mister (cold air) control (twist);
2. Speedometer;
3. Screen wiper control (pull on, twist for manual operation);
4. Starter (pull);
5. Direction indicators (turn left or right);
6. Choke (pull out);
7. Fuel low-level warning lamp;
8. Ammeter;
9. Switch for combined speedometer and interior light;
10. Headlamp beam height adjustment;
11. Lighting, dipper and horn switch (twist knob, push to and fro, press knob);
12. Hand-brake (pull);
13. Gear lever.

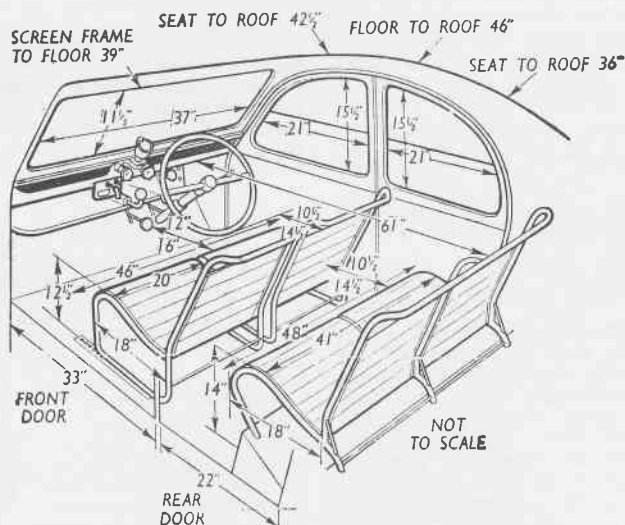
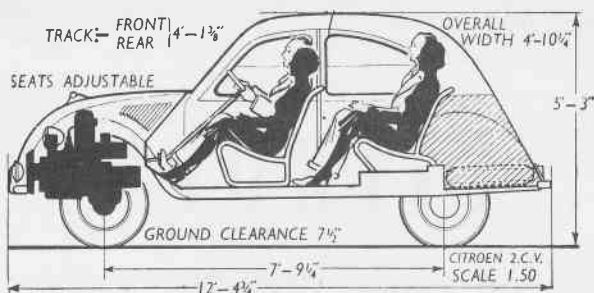




**Make:** Citroen

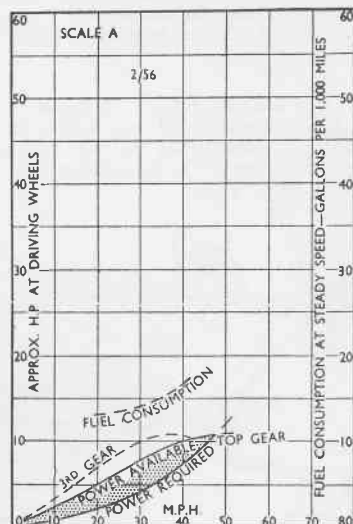
**Type:** 2 c.v. (AZ) Cabriolet

**Makers:** Citroen Cars Ltd., Trading Estate, Slough, Bucks.  
(Parent Factory, S.A. Andre Citroen, 117-167, Quai de Javel, Paris)



## WEIGHT

Unladen kerb weight .. 10 1/2 cwt  
Front/rear weight distribution .. 58/42  
Weight laden as tested .. 14 cwt.



Drag at 10 m.p.h. .. 27 lb.  
Drag at 60 m.p.h., by extrapolation, approx. .. 127 lb.  
Specific Fuel Consumption when cruising at 80% of maximum speed (i.e. 37.8 m.p.h.) on level road, based on power delivered to rear wheels .. 0.75 pints/b.h.p./hr.

## Test Data

**CONDITIONS** Cold, humid weather with little wind (temperature 43-45°F., barometer 30.5 in. Hg.), Smooth, tarred road surface. Standard-grade pump fuel.

## INSTRUMENTS

Speedometer at 30 m.p.h. .. 7% fast  
Speedometer at 50 m.p.h. .. 4% fast  
Distance recorder .. 2% fast

## MAXIMUM SPEEDS

**Flying Quarter Mile**  
Mean of four opposite runs .. 47.2 m.p.h.  
Best time equals .. 49.2 m.p.h.

## Speed in gears

Max. speed in 3rd gear .. 43 m.p.h.  
Max. speed in 2nd gear .. 31 m.p.h.  
Max. speed in 1st gear .. 15 m.p.h.  
(Normal recommended speeds in gears. 37, 22 and 10 m.p.h.)

## FUEL CONSUMPTION

76.5 m.p.g. at constant 20 m.p.h.  
70.5 m.p.g. at constant 30 m.p.h.  
59.0 m.p.g. at constant 40 m.p.h.  
Overall consumption for 1,210 miles, 24.35 gallons, equals 49.7 m.p.g. (5.7 litres/100km).  
Fuel tank capacity 4 1/2 gallons.

## ACCELERATION TIMES Through Gears

0-20 m.p.h. .. 6.3 sec.  
0-30 m.p.h. .. 13.6 sec.  
0-40 m.p.h. .. 27.0 sec.  
Standing Quarter Mile .. 31.1 sec.

## ACCELERATION TIMES on Two Upper Ratios

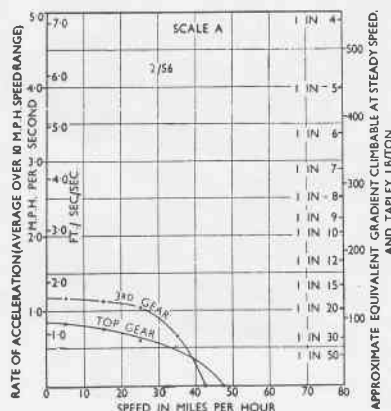
	Top	3rd
0-20 m.p.h. ..	25.3 sec.	17.5 sec.
10-30 m.p.h. ..	30.0 sec.	18.4 sec.
20-40 m.p.h. ..	36.2 sec.	24.9 sec.

## HILL CLIMBING (at steady speeds)

Max. gradient on top gear .. 1 in 21.3 (Tapley 105 lb./ton)  
Max. gradient on 3rd gear .. 1 in 13.5 (Tapley 165 lb./ton)  
Max. gradient on 2nd gear .. 1 in 8.6 (Tapley 260 lb./ton)

## BRAKES at 30 m.p.h.

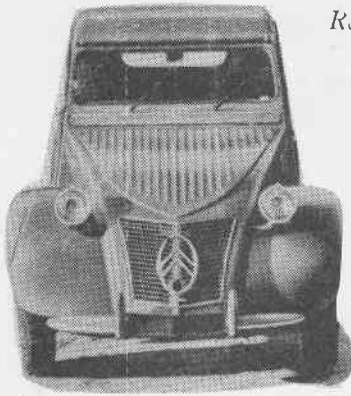
0.96g retardation .. (= 21 1/2 ft. stopping distance) with 90 lb. pedal pressure  
0.79g retardation .. (= 38 ft. stopping distance) with 75 lb. pedal pressure  
0.50g retardation .. (= 60 ft. stopping distance) with 50 lb. pedal pressure  
0.20g retardation .. (= 150 ft. stopping distance) with 25 lb. pedal pressure



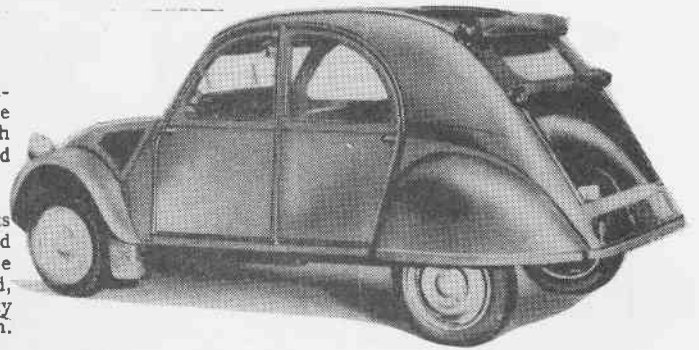
## Maintenance

**Sump:** 3 1/2 pints, S.A.E. 20. **Gearbox and differential:** 1 1/2 pints, S.A.E. 80 E.P. gear oil.  
**Radiator:** none. **Chassis Lubrication:** By grease gun every 1,000 miles to 4 points. **Ignition timing:** 8° B.T.D.C. **Spark Plug gap:** .025-.028 in. **Contact breaker gap:** .015 in. **Valve timing:** I.O. 3° B.T.D.C., I.C. 45° A.B.D.C., E.O. 45° B.B.D.C., E.C. 11° A.T.D.C. **Tappet clearances:** (Cold) Inlet .006 in. Exhaust .008 in. **Front wheel toe-out:** 3/16 in. **Camber angle:** 1 1/2°. **Castor angle:** 1°. **Tyre pressures:** Front 14 lb., rear 15 1/2 lb. **Brake fluid:** Lockheed **Battery:** Exide, 6 volt, 57 amp-hr. **Miscellaneous:** Every 2,000 miles apply oil with brush to joints in suspension and controls.

Ref.F-B/5/56



Left : The characteristic washboard ridges on the bonnet are among many features which have excited widespread controversy.



Right : Here seen with its folding head rolled back and the fabric cover over the luggage compartment furled, the 2 c.v. Citroën offers utility motoring in its simplest form.

# THE 2 c.v. CITROËN

## A TECHNICAL REVIEW OF THE MOST ORIGINAL DESIGN SINCE THE MODEL T FORD

**A**LTHOUGH *The Autocar* was able to publish the first detailed Road Test of the 2 c.v. Citroën in the issue of January 23, 1953, many of the interesting mechanical features of the design have not yet been dealt with in detail, and the accompanying illustrations have therefore been made to reveal the extraordinary ingenuity of this design, which is undoubtedly the most original since the Model T Ford.

When it was first exhibited, the car was regarded by many Frenchmen as a joke, and it inspired a large number of malicious witticisms, but the thousands now on the road have performed so well that the jokes are heard no longer. The 2 c.v. is now the most sought after car in France, and the only one that sells at a premium second-hand. There seems to be a definite 2 c.v. cult in course of creation and an extraordinary spirit of camaraderie exists between owners. They wave to each other on the road and eagerly exchange experiences whenever they meet.

Originally the 2 c.v. was designed as a runabout for people in rural areas who could not afford conventional cars, and utility rather than beauty was the guiding

principle in its design. It was planned to run for long periods with little attention and was intended to stand up to the worst abuse to which it could be subjected by buyers who had never driven cars before. It has done this so well that it has now excited the interest of the more sophisticated town dwellers and its popularity is limited solely by the output, which at present is gradually increasing towards 200 a day.

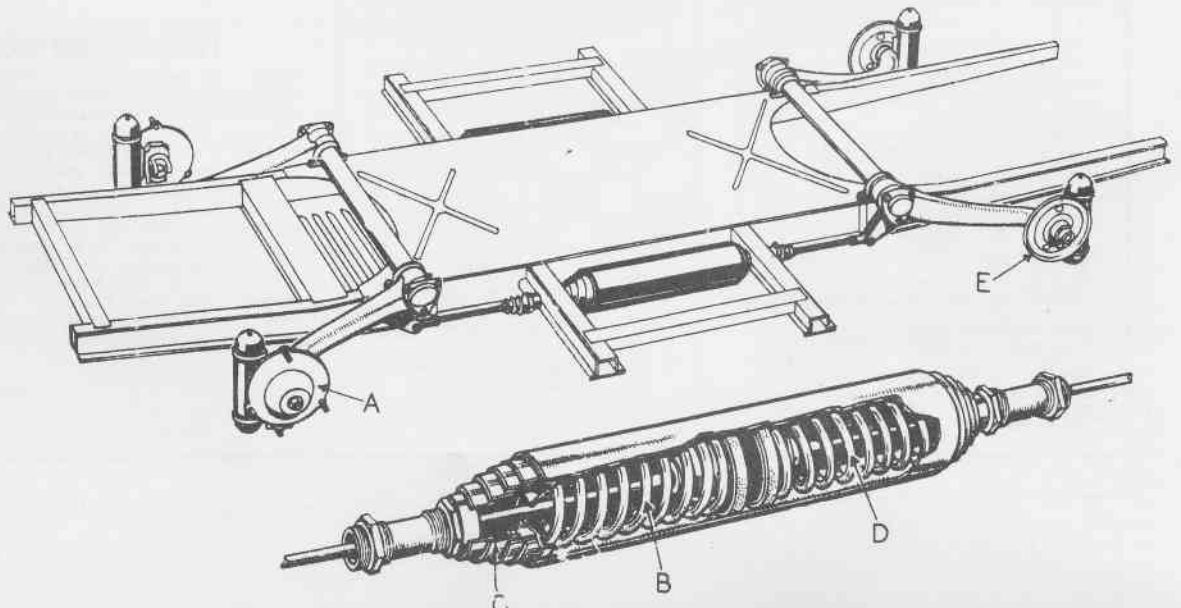
### Real Utility

The conception established by the late M. Boulanger, then in charge of the Citroën destinies, was that of a small car providing comfortable travel for four people and luggage, over all types of road and rural cart track. Speed and hill-climbing were not important, provided they were superior to those of the pony and cart which the car was designed to replace, but fuel consumption must be 55-60 m.p.g. In fact, the target fuel consumption has been realized and the maximum speed on the level proves to be about 40 m.p.h., which can be sustained for as long as conditions allow, without danger

to the mechanism. Moreover, the 2 c.v. has proved capable of climbing the highest Alpine passes, albeit at a modest gait of some 10 m.p.h. Its leisurely pace when climbing mountains still produces patronizing smiles from occupants of more powerful cars, but once over the top of the pass, their expressions change, for there are scarcely any cars of any size that can keep pace with a 2 c.v. in competent hands down a twisting mountain descent. Its hydraulic brakes, with a lining area of 65 sq in, are exceptionally large in relation to an unladen weight of only 1,100 lb and give it a margin of stopping power which is enjoyed by few other family cars regardless of size or cost.

The 2 c.v. resembles the larger Citroëns in having front-wheel drive, but in practically no other respect. The engine is an air-cooled, flat twin mounted ahead of the front wheels and many people think it resembles a motor cycle engine, but the resemblance is only superficial, for this little power unit is built to safety factors usually associated with heavy truck engines. By restriction of the inlet manifold cross section, the output for a swept volume of 375 c.c. has been kept down to

Basic chassis structure and suspension system of the 2 c.v. Citroën. Projecting arms at front and rear are connected to spring units at the centre of the chassis. When the front wheel arm A strikes a bump, its connecting rod compresses the coil spring B. This draws the cylindrical casing forward against the action of the volute spring C and partially compresses the rear wheel spring D, bracing the rear wheel E to resist the shock of the bump. The inset shows the construction of the inertia dampers, in which a cast iron weight acts in conjunction with a coil spring to eliminate wheel patter.



9 b.h.p., or a mere 24 b.h.p. per litre, and the engine is capable of running at full load for long periods. It is not unusual for production engines to be run on full throttle continuously for 100 hours or more in factory bench tests. The car is a brilliant example of simplification, but there are certain features which are not found even on more expensive models. The engine has hemispherical combustion chambers. The cooling fan which supplies air through ducts to the cylinder barrels and heads is very generously proportioned and it is supplemented by an oil cooler. Moreover, driving is simplified by a gear box which has synchromesh for all four forward speeds. It is emphasized that these things are not luxuries; they are essential to the conception of a reliable car, capable of standing the hardest use in unskilled hands.

The engine is designed to run on the lowest grade fuel; indeed this is recommended because the smaller the lead content, the longer the valves can be expected to run without trouble. In its general layout, with its light alloy crankcase split on the centre line, two-throw counterbalanced crankshaft and light alloy heads, it is not startlingly unusual, but there is no ignition distributor. A simple contact breaker, built into the front end of the crankcase, is driven direct off the end of the camshaft and a twin coil unit clipped to the head lamp cross bar supplies sparks continuously to both plugs, so that these fire on the power stroke and on the exhaust stroke.

Another remarkable simplification is the construction of the dynamo, which has no bearings. The dynamo casing, carrying the permanent magnets, is spigoted into the crankcase, and the dynamo armature fits on a taper on the front end of the crankshaft. The fan is then inserted into a reverse taper on the end of the armature, and the whole assembly is drawn together by one bolt. A starting handle dog is incorporated in the hub of the fan.

To compensate for the pressure fluctuations in the crankcase caused by movement of the pistons, a small steel flap valve is fitted in a branch passage off the oil filler, from which a pipe takes the escaping fumes up to the carburettor air cleaner. The carburettor is a Solex downdraught, feeding into a welded steel

manifold, the cross section of which has been deliberately calculated to restrict the total power developed, and directly below the carburettor is an exhaust heated hot spot.

No cotters are used to secure the valve springs. The valve collar has an offset hole which is slipped over the end of the valve stem and is then moved sideways to register with a flat on the stem. The valve gear is enclosed by an oil-tight aluminium cover resting on a synthetic rubber seal on the aluminium cylinder head. The oil pump, which consists of a gear engaging with an internally toothed eccentric ring, is driven off the rear end of the camshaft and the pump housing forms the rear camshaft bearing. Effective oil temperature control is provided by the cooler already mentioned, but in addition, there are cooling fins on the lower face of the sump, which has a capacity of two litres.

The dimensions of the engine bearings testify to the manufacturer's concern for long life between overhauls, the mains being cast bronze shells with white metal linings and the big-ends being copper lead shells. The crankshaft is made in three pieces. The connecting rods are assembled on the crankpins integral with the front and rear portions of the shaft, and then the two crankpins are forced into the oval central web by hydraulic pressure. Thus the assembly can be stripped only at the factory, and if trouble arises it is replaced by a reconditioned unit.

### Unique Suspension

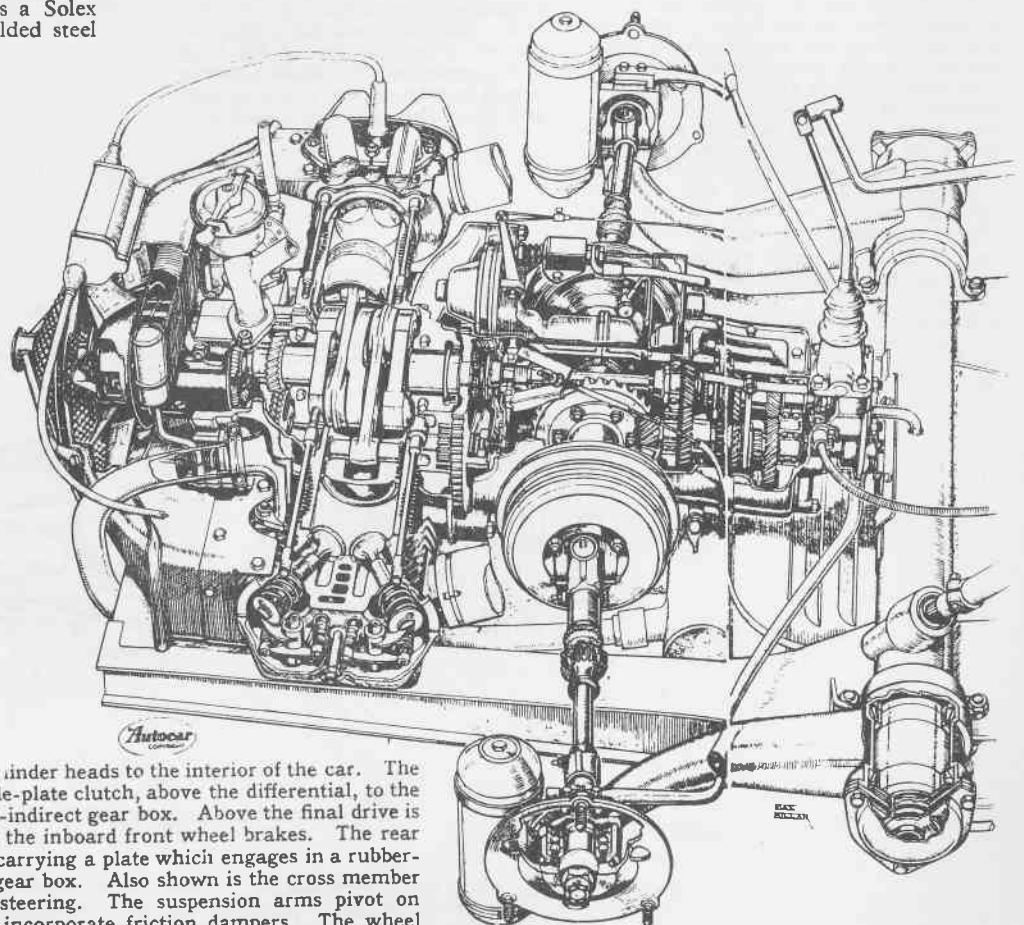
The single-plate dry clutch and the layout of the gears in the all-indirect gear box conform to normal front wheel drive practice. The spiral bevel final drive has a ratio of 3.87 to 1 and the overall ratios are 5.7, 7.5, 12.56 and 25.9 to 1. The drive shafts to the front wheels have simple needle roller universals at each end, no constant velocity joints being deemed necessary at the powers and

speeds concerned. The suspension system is unique in its whole conception, and within its performance range the Citroen has exceptionally good road holding, with a degree of riding comfort over really rough surfaces which is not attained by any other small car. Much of the credit for the results obtained must go to the inertia dampers, one of which is fitted adjacent to each wheel. The damper consists of a steel cylinder housing a cast iron weight of about 7½ lb which rests on a coil spring. As the wheel rises, the weight descends in the cylinder and compresses the spring against the bottom of the cylinder, thus resisting the wheel movement. The damper is only intended to suppress the wheel patter which can arise with such a light assembly; deflections of greater amplitude are dealt with by the friction dampers built into the pivots of the suspension arms. A small quantity of oil in the cylinder is forced up the central guide tube by the descending piston and sprayed over the cylinder walls as a lubricant, but it has no part in the damping action.

It will be noticed that the arms carrying the wheels are connected to the coil suspension springs in a way which tends to confer a progressive rate as the wheels rise, and there is a degree of inter-connection between front and rear wheels. The front wheel steering pivots are mounted entirely below the hubs and the castor angle varies with the load on the car. With the car empty, there is a positive castor of some 14 degrees, but with two people on board this is increased to 22 degrees. The wheelbase also varies with the load; unladen it is only 93.3 inches, but extends to 95.6 inches with four people and 110 lb of luggage.

Criticism of the Citroen's angular and ungraceful appearance has been largely stilled by its economy and proved durability in hard service, but there are still some who feel that its flat panels, its harsh lines and the washboard ridges on its bonnet make it unnecessarily ugly. The rea-

the engine, gear box and front drive assembly of the 2c.v. Citroen is cut open, revealing the offset cylinders and two-throw crankshaft. In front is the dynamo, carrying on its nose the cooling fan, and above it is the oil cooler. Air ducts from the fan lead to the cylinder barrels and heads. Pipes at the rear take hot air from the cylinder heads to the interior of the car. The drive shaft passes from the single-plate clutch, above the differential, to the four-speed, all-synchromesh, all-indirect gear box. Above the final drive is the starter and on each side are the inboard front wheel brakes. The rear engine mounting is a small peg carrying a plate which engages in a rubber-lined socket on the end of the gear box. Also shown is the cross member housing the rack and pinion steering. The suspension arms pivot on twin taper roller bearings and incorporate friction dampers. The wheel hubs have twin row ball bearings.

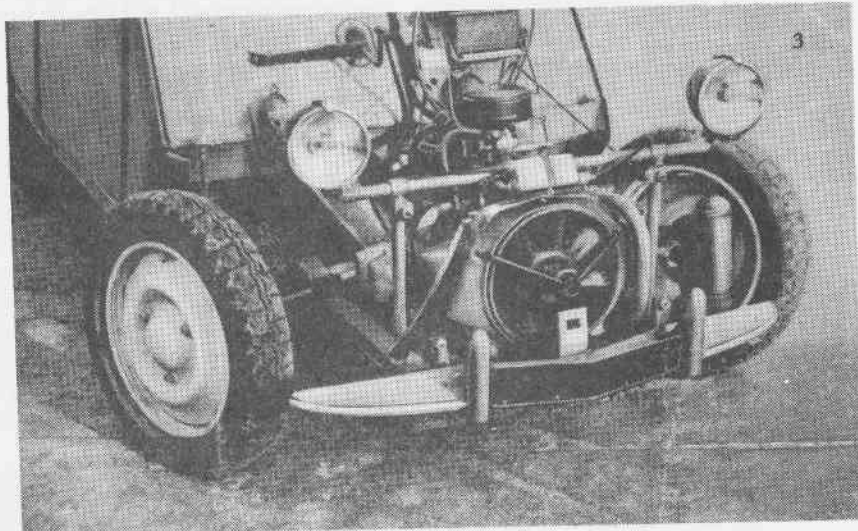


son is associated with the conditions under which it was evolved. Preliminary work began on the project before the war, but the car as now built was designed during the German occupation, at a time when it seemed likely that the factory would be left with few tools or presses of any value to resume car production. The body and basic structure were therefore designed to be produced with the minimum employment of press tools. The suspension and main mechanical elements are attached to a simple frame of steel sheet formed largely by folding, and to this there is attached by spot welding a body which represents the simplest enclosure capable of protecting four people and their luggage from the elements. The seats are formed of light pads supported on rubber bands stretched across a light tubular frame. Doors and bonnet have no conventional hinges; they are simply joined by interlocking flanges at their edges which serve the purpose equally well. By lifting out the pins holding the check straps, and removing the two screws which secure the caps over these flanges, all four doors can be slid upwards and removed from the car in a few seconds. All panels are protected against rust by a phosphate coating.

### Low Running Costs

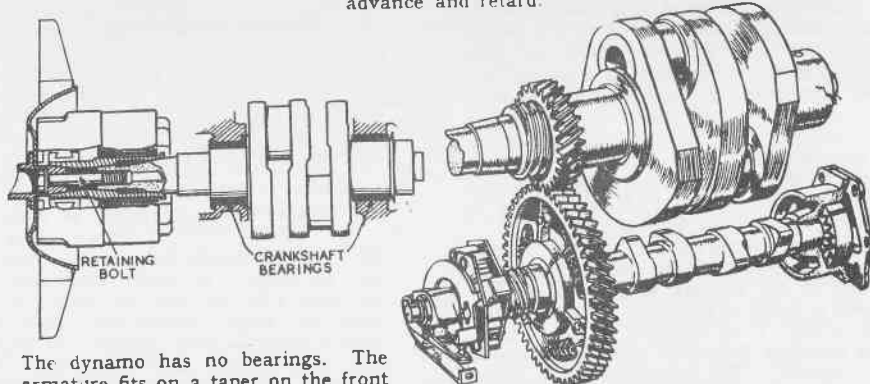
Apart from the inherent merits of the car as a sturdy means of day to day transport for the man whose car must earn its keep, the operating costs go far to ensure its popularity. Decarbonizing, an operation within the capacity of most handymen, is necessary only at intervals of about 12,000 miles and at the same time it is a simple matter to slide off the cylinder barrels and check the piston rings. The normal life of pistons, rings and cylinders is reckoned to be about 36,000 miles, and a complete replacement set can be bought for £7 12s 6d. The car is delivered with a free insurance on a third party, fire and theft basis for five days, sufficient to cover the delivery period and enable the owner to complete his own arrangements, and the annual insurance premium asked for the 2 c.v. is some 30 per cent below that for its nearest competitor. In any case, casual damage to bodywork presents few terrors when a complete new front wing can be bought for £2 14s and a rear wing for £2. It is not worth the trouble of repairing them. The engine exchange system operated by the French Citroen factory also presents unusual features, for there is no fixed charge: the owner is charged only with the cost of the work found necessary to restore his own engine when it is finally dismantled. For this he has his new engine fitted without delay.

At its present price of 341,870 francs (£346) the Citroen is assured of a steady demand in France, but there is good rea-

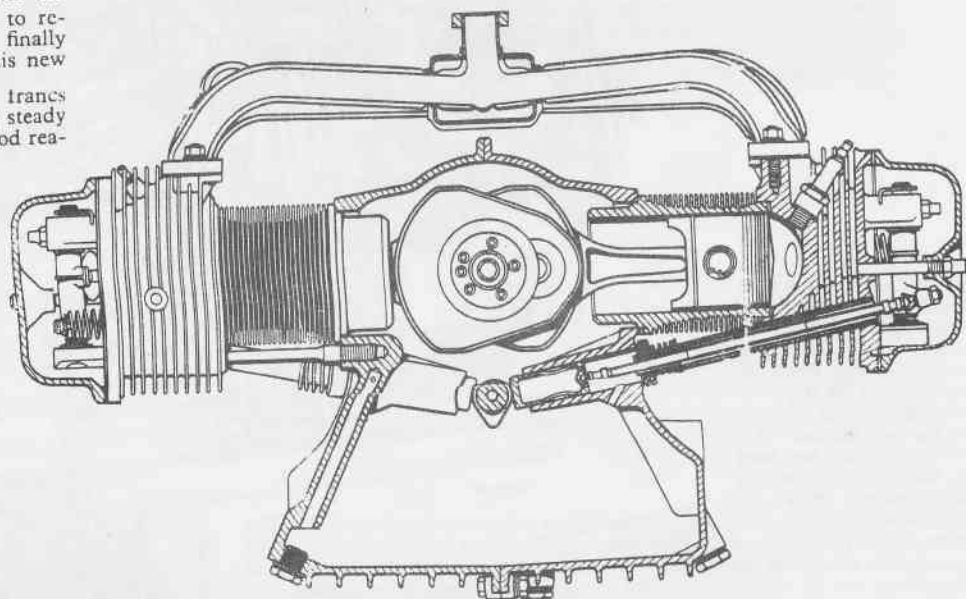


By easing two thumb screws and using the wheel brace to slacken off four nuts on each side, the bonnet and front wings can be removed entirely in one minute, giving access to power unit, transmission, suspension, steering and brakes.

Any back-lash which may develop in the timing gear is taken up by the use of a split gear on the camshaft. The two halves, one fixed and one free on the shaft, are joined by coil springs which maintain an even pressure on the drive gear teeth. The oil pump is on the rear of the camshaft. At the front is the ignition contact breaker, which is built into the crankcase. The drive to the cam is transmitted through four pegs, connected by two leaf springs carrying bob weights to provide a centrifugal advance and retard.



The dynamo has no bearings. The armature fits on a taper on the front of the crankshaft and the cooling fan fits into a reverse taper in the front of the armature. The whole assembly is held together by one retaining bolt, and runs safely up to over 5,000 r.p.m.



A section through the engine, showing the aluminium crankcase split on the centre line and the cylinders, which are spigoted into the crankcase and secured by long bolts passing through the aluminium heads. The varying depth of the cooling fins on the cylinder barrels is interesting and also the small section of the inlet manifold, with its exhaust-heated hot spot.



son to suppose that with increasing employment of mechanized production methods this price can be progressively reduced. Indeed, one of the questions exercising the minds of sales executives in other car factories in France and elsewhere is the fact that no one knows just how cheaply it *could* be sold if competition appeared. Certainly the manufacturers are taking great care to safeguard its growing reputation. They originally planned a larger engine of 425 c.c. for the delivery van version, but abandoned it purely because they thought that many owners would be tempted to fit the larger cylinders and pistons to the saloon model and thus upset the balance of performance and economy, road holding and ~~riding~~ comfort which has been so painstakingly achieved.

#### SPECIFICATION 2 c.v. CITROEN

**Engine.**—2 cyl, 62 x 62 mm, 375 c.c. Flat twin, air cooled. O.h.v. in hemispherical light alloy heads with push rod operation. Compression ratio 6.2 to 1. 9 b.h.p. at 3,500 r.p.m. Max torque, 16.6 lb ft at 1,800 r.p.m.

**Transmission.**—Single-plate dry clutch. Four-speed all synchromesh gear box with facia control. Spiral bevel final drive to front wheels. Fourth speed geared up. Overall ratios 5.7, 7.5, 12.55, 25.9 to 1.

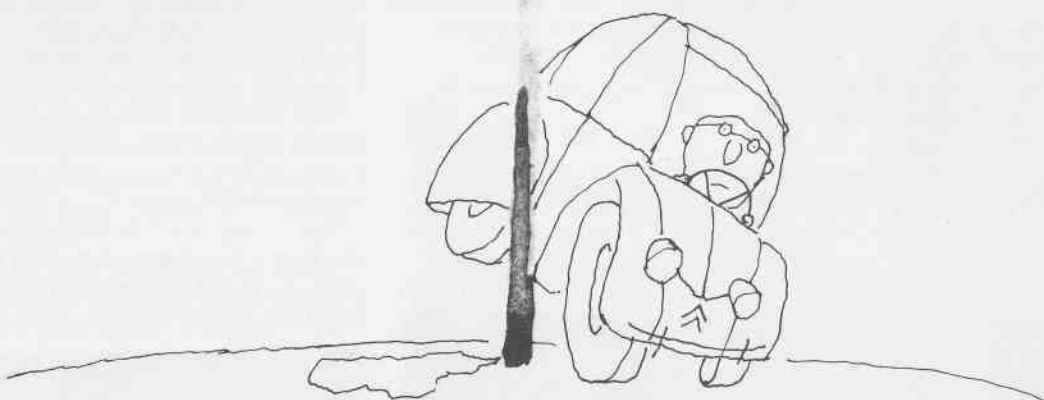
**Suspension and Steering.**—Independent front and rear. Single leading arms at front, single trailing arms at rear. Coil springs in compression, interconnected between front and rear. Inertia and friction dampers.

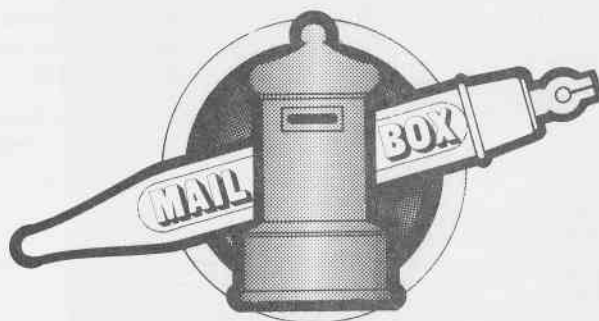
**Wheels, Tyres, Brakes.**—Steel disc wheels with three-bolt fixing. Michelin tyres 125-400 mm. Lockheed hydraulic brakes with leading and trailing shoes. Front drums 7.8in diameter; rear 7.08in.

**Dimensions.**—Wheelbase (unladen) 6ft 4in. Overall length 12ft 4in. Width 4ft 10in. Height (unladen) 5ft 3in. Kerb weight 1,100lb.

Another new member in Canberra? Congratulations to Wendy and Mike Neil on the birth of a daughter, Fiona Emily, on Thursday 13th July.

Members wanting to purchase bearing bronze should ignore the listing in last Front Drive, and contact Brian Grant, who is able to supply it at a good price.





The Editor:

Dear Kym,

Recently I was fortunate enough to be loaned a couple of copies of your excellent magazine. 21 years ago I purchased a 1939 11CV Roadster which I ran for 6 years. A finer car no man ever had. I sold it in 1963 for 600 pounds, quite a staggering figure then for a pre-war car. I only wish I had it now! Since then I have owned a 1962 ID19 in which I have done nearly 200,000 virtually trouble-free miles.

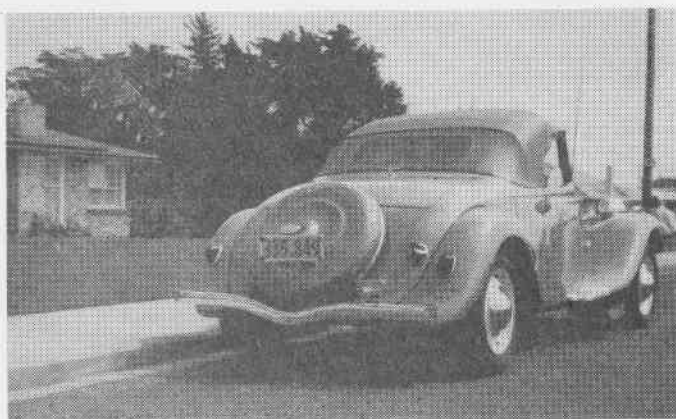
The Traction Avant is very much alive out here and enjoys an enthusiastic following. Within 20 miles of where I live there are innumerable 11's and 11BL's, a couple of 6 cyl. 15CV's, and a 1939 roadster (the owner of which recently declined an offer of \$10,000). Of these, some are in mint condition, while others vary in state of restoration or disrepair.

In Hamilton, which is some 80 miles from Auckland, there is a 1954 11BL which has been fitted with DS gearbox & auto clutch, disc brakes, and motor, while there are a few cars with 'D' gearboxes and/or motors. Back in 1959 I assisted my brother with what was probably the first (in the Southern Hemisphere) fitting of a DS19 motor into his 1951 11BL. This car is still going strong I believe.

Onto Tractions of a smaller scale, I have just bought a 1/8 scale plastic kit of a 15CV by the French firm Heller. What a beautiful thing it will be when complete. Everything is reproduced in miniature, the rack-and-pinion steering works, and it even has scale tread pattern Michelin Pilotes 185x400. There is a choice of parts for making it a '48 or '51 model. It has 10,050 odd parts and the building instructions look just like a full size workshop manual!

Letter 2:

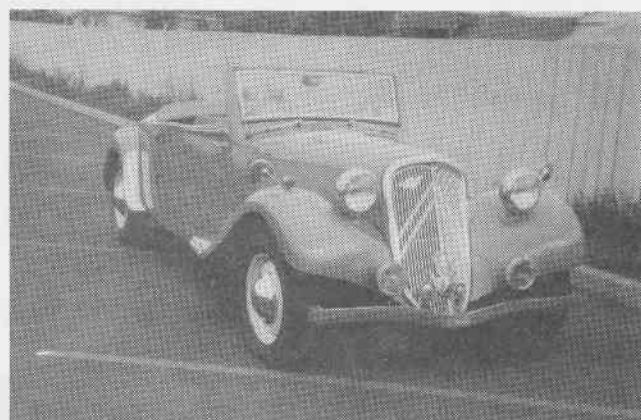
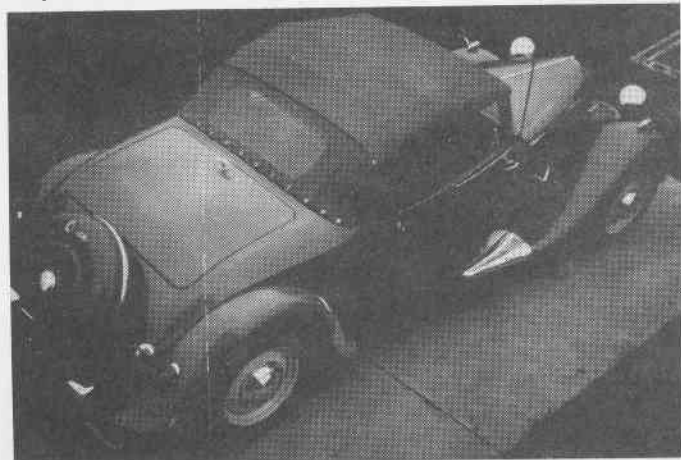
... Many thanks for your letter — I must admit I was a little flattered at the awe in which even a former roadster owner is held over there! I have enclosed some photos taken in late 1963 just a bit before I sold her. As you will see I had lavished a lot of loving care on her.



Note that I had fitted the later scuttle mounted wipers, not exactly what the purist would allow, but a far better setup than the old MG TC type! (Anyway, the 1940 models had the scuttle type mounting.) The bonnet was from a '52, as were the seats and wheels — funny how one's tastes and ideas change, I didn't like the Pilote wheels then, whereas now I think they're beautiful; the forerunner to the modern mag. wheels, I reckon.

The bumpers were from a '48 and I had the late model lights, horn, dipswitch fitted. The motor sported a pair of Solex's and went really well. She was always shod with Michelin X's — the only tyres worth having.

Sad to say she fell into some pretty rough hands, and the last I heard someone had tried to marry the front section of a '54 saloon onto her and made a horrible botch of the whole job. Why they should have needed



to do this baffles me, as the front was structurally very sound. We had fitted new Silent-Blocs and double-skinned the hull round where the cradle bolts protrude. The rear had a few minor fatigue cracks round where the rear suspension arms were attached to the hull: I intended to rectify this, as it was not going to be a major job at all.

Regarding your queries re disc brakes for the Traction, the brakes were — shame oh shame — Austin 1800 units mounted outboard. The only 4-speed conversion that I have driven was an ERSA which had the 4 forward speeds in the gate, with reverse picked up by a pull cable arrangement. I don't know how the ID/DS ones are operated — will try and find out for you.

The other photo is from an old Citroen Car Club rally circa 1961/2 at Rotorua, and shows my older brother Roy's '51 11BL (the one with the DS mill). The Deux Chevaux is also his. Incidentally, the 11BL was originally a flat back, but he fitted a big boot, and also made a beautiful job of reflooring right through with a corrugated floor from a VW Kombi. That's Alan holding one of several scrapbooks on the famous marque that I've compiled over the years, I'm further to the right, wearing the pom-pom hat. The guy on the left was the owner of the 1937 hardtop Coupe you can see — a 12 HP model.



By the way, Shorters, the Auckland Citroen agents, a large family concern, have a near perfect and original roadster which just lies gathering dust in the back of their workshop. They will not part with it, which annoys everyone no end as they are not really Citroen orientated but Jaguar if you please.

Up till now I have done 28 hours work on my Heller Six, and have virtually completed the motor/transmission and made up the front cradle, and fitted the wishbones and torsion bars.

We were most interested to hear you have a Family Nine. This is I take it, the model with the third window in the rear quarter panel. Do you know, I've never seen one in the raw. I don't know if there are any left in New Zealand. There were a couple in the South Island years ago, but were I believe in a pretty sorry state even then. I only wish the Heller kit had the necessary parts to convert, as I reckon they are a mighty looking wagon with that third window...

Well I'd better close now — I hope my ramblings will prove of interest to you.

Yours sincerely, Max Poole.  
Auckland, New Zealand.

(Max also makes mention of a coupe owned by an elderly lady, which has recently been sold to an American collector, reputedly for \$40,000 — especially galling, as the lady was a distant relative!)

Sir,

This member was appalled at the lack of support from CCOCA club members, both Victorian and interstate, with the exception of South Australia, given to the Queen's Birthday weekend meeting.

The meeting was generally understood, although not explicitly stated as such, to be the 2nd meeting between the South Australian and Victorian 'Traction' clubs, the first meeting being of course the Swan Hill rally in 1977.

The meeting was attended by 9 Traction, 7 from South Australia, 1 from Canberra, and only one from Victoria, my own car. Several people also attended in other cars, including one Victorian club member and family. One car, not a 'traction', more about this later, also arrived from Sydney. I believe, although I stand to be corrected, that the South Australian roll-up included all 'tractions' registered and going in South Australia, a fantastic response.

Many factors contributed to the poor response from non-South Australian club members. The meeting was not well publicised, both from S.A. and Victoria. It was billed as 'Queens Birthday Weekend' and not as a 'traction' rally. At the Victorian club meetings the rally was hardly mentioned. What mention was small and very brief. In contrast last year's Swan Hill rally was pushed very hard at club meetings. The factor most mentioned in discussions, particularly by Victorians, was the long distance to be travelled. This is a very poor excuse. The club professes to be an Australian Club and at Swan Hill it was proposed that the meeting should become a national meeting. If one intends to hold national meetings then long distances are unavoidable. Where is the adventure spirit in today's 'traction' owners? Cars are meant to be driven, on the highway, as well as around town. Troubles may arise on the way, but there is generally a way to overcome them and this is a part of the fun of attending such a rally. In my own case I had very serious problems on the way back from the rally, but they were eventually overcome and the car made it back to Melbourne under its own power and is now going better than ever. I had an experience I will always remember, and with no regrets.



Indicative of the recognition given to the rally by CCOCA is the newly instigated 'club-person of the year' award. Points for this award commenced with the June 7 general meeting, that is 2 days after the rally. Surely the award could have commenced with the rally. I personally am not particularly interested in becoming 'club-person of the year', but I cite my case as an example. I attended the rally, gained no points for being the sole Victorian 'traction' representative, could not make it back to the next general meeting and lost points again. Attendance at the rally should have been worth more points than at general meetings or local

social activities but I was doubly penalised for my efforts.

As far as the rally itself was concerned, I feel it was a successful and enjoyable rally, but I would like to make a few small criticisms concerning the awards. I feel these were treated too casually. Awards should be a highlight of such a rally. The award for the furthest distance travelled by a 'traction' was given to the GS owner who came from Sydney. Was this a 'traction' rally or not? I also feel that the prizes should have been more substantial, although I realise that finance is a problem.

I hope that this rally will in future become a national rally, preferably annual, or at worst bi-annual, with the venue rotating from State to State irrespective of distance, and as such become the highlight of the club year and one of the main reasons for the existence of the club. An Australian Traction Rally with 30 to 40 tractions present would be a tremendous sight. It can happen.

Alec Protos



[Editor's Note: Hoorah! Somebody else understands the frustration of interesting and carefully organised club activities which are poorly attended – e.g. June meeting where very few turned up for Rex Gercovich's and Bob Gilbert's enlightening and well-prepared upholstery demonstration. There are, however, three points which do require explanation.

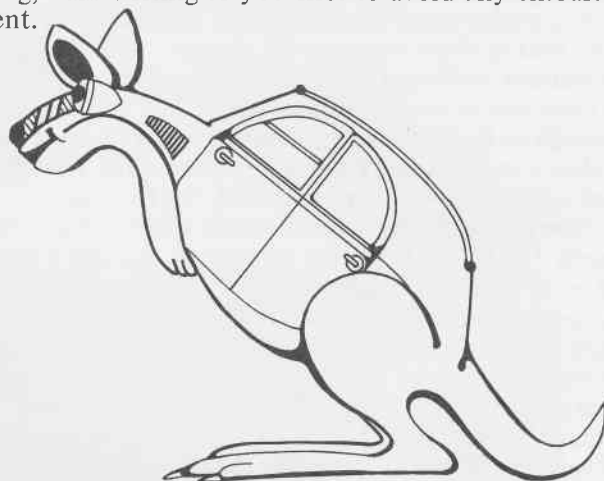
1. The rally was hardly mentioned because we had great difficulty getting any information from South Australia, and right up to the week before, details were not known.

2. Added to this problem was the distance, 1100 miles in 3 days would have guaranteed big-end bearing failure in the only vehicle I had available, and we were committed to this distance before we had a chance to discuss it.

3. While I sympathise with you, Alec, over your predicament regarding the club-person award, it would have been unfair to include the weekend, as it was announced in June 'FrontDrive' which only arrived a couple of days before the weekend.]

Dear Sir,

I am in a quandary whether to write to you, or to the Royal Society. However, as you may already be aware of the existence (though I think it unlikely) of the creature of which I have enclosed an early drawing, I am writing to you first to avoid any embarrassment.



The enclosed drawing was only this week discovered in an exciting find of sketches made by Joseph Banks, dated around the middle 1770's, which were in an old trunk discovered under a demolished house. Damp and silverfish had regrettably damaged a substantial portion of the collection, but this drawing remained almost intact.

Under expert examination you may notice some similarity between this creature and – did you guess? – a Citroën 2CV. Aside from the probability of Charles Darwin being most excited, if he was still with us, it must cause us to question, if we are to remain scrupulously, unimpeachably candid, whether, in fact, La Societe Anonyme Andre Citroën can, in all good faith claim legitimate fatherhood of 'Le Deux Chevaux' (or whether indeed, this name is only an invidious French cover-up for the true origins of this creature which should obviously bear the Appellation, 'L'un Kangourou'). It has taken me all these years for me to uncover (did they really think they could get away with it?) Boulanger's cryptic clue – 'a vehicle to carry a basket of eggs over a ploughed field'. Obviously this so-called Pierre Boulanger, or one of his cronies, found a basket of these '2CV' eggs in some French field somewhere, hatched them, stuck wheels on, and you know the rest.

Sir, I leave it to your sense of honour and decency to join with me in exposing this appalling and monstrous deception perpetrated by the companie we had loved and respected (especially as all attempts at blackmail have so far failed). One can only guess at the thinly disguised origins of the 'D' series – what does 'D' REALLY stand for? Whatever it stands for, WE must not stand for any more of this!

Yours sincerely,  
The Missing Link.



*This startling discovery has been incorporated in the emblem of the Coo-ee Whoopee Bonzer Club, an informal club devoted, among other things, to the protection of this endangered species.*



Dear Sir,

In defence of the 'near enough' restorer, I feel that I must make these points.

Many restorers of old cars are often doing their first restoration, and often fall into traps that await the unwary, or are lacking the advice or technical gifts to achieve a quality restoration.

These people are at least attempting to preserve an old car (not necessarily a Citroen) and should be commended for their efforts. Other restorers are doing the best they can, with the limited resources they have available. This often explains the home paint job that either crazes or is full of dry peel, and the rock, mop and bog job on the panels.

Perhaps members of this club who have facilities and expertise (not the trade members, as I do not believe they should give away their means of living) should make themselves available to budding restorer members purely for the joy of seeing another Citroen back on the road.

Incidentally, there are many 'near enough' jobs done by the rodding fraternity as well.

One practice I do however decry is that of the 'fast buck' restorer(?) who patches his car for immediate sale at a price not far away from that of a genuine restoration. This dishonesty should be stopped.

Yours,  
Gerry Propsting.

Dear Sir,

I read with great interest the article Mark wrote concerning Citroens in Australia and their identification. I would like to shed some light on the Commercial ('e' only in French). A query was made as to the existence of the post-war version in Australia. I can affirm that it did.

Late in 1970, I saw one parked in Riversdale Road, Surrey Hills. It was the large boot model, and as the Family 9 was only produced with this feature during 1955 by the Slough works, I feel fairly safe in assuming that this was the production year of this car. (Unfortunately I did not make a habit of collecting production numbers then — perhaps I should have.)

The car may have been a post-factory conversion, but I am sure this is not the case. The trim was too original and well fitting to have been disturbed. Incidentally the trim was of course totally English and therefore it could not have been a RHD conversion of a Paris car.

The differences between the rear seat back and that of the standard family version also rule out the possibility of a post factory conversion. The seat was much thinner and did not possess a rear arm-rest. This enabled the seat to be folded flat when the other section had been moved forward onto the rear floor, thus making it a very useable Station Wagon.

As in the Paris version, the bootlid hinged above the rear window and lifted in one piece. The car appeared to be in good condition, colour black, and interior red. You can imagine how disappointed we were when we found the car some three years later, devoid of wheels, boot lid, seats, bumpers, bonnet and grille, lying in a puddle with its back broken, not far from the rail-crossing on the Moorooduc Road.

It presented us with such an unhappy sight, that the most we could do for her was to save her mechanicals. Just imagine, her gearbox was perfect, except where some brute had tried to open it with a rock.

Yours,  
Gerry Propsting.

P.S. There was also an 11CL3 built 1939 as well as the

11CL2, 4, 6, and 8 mentioned. This model marked the transition from a part steel and part wooden roof, to an all steel roof. I had the opportunity to buy one during 1967, and I am still kicking myself for letting it slip by. The car was resplendent in its royal Blue duco and matching trim, and had only 60,000 miles on the clock.

Mark adds: It is pleasing to see club members responding to requests for information. Gerry's sighting, along with a conversation I had recently with Les Francis of Sydney, would appear to put the number of postwar Commercials in Australia as high as four.

What Les thinks happened, and I agree with him, was that when the order for twenty-five Family Nines was made to Slough, Slough relayed it to Paris and were sent 25 bodies for trimming, assembly, etc. Paris simply took 25 off the production line, and some of these were Commercials. The final result was that instead of 25 Family Nines, there was a mixture of Family Nines and Commercials exported to Australia.

There's an interesting unsubstantiated story that Citroen Paris did not actually make the Commercials, but delivered Familiales to the Henri Chapron coachworks, who then did the necessary modifications, and relayed them on to the distributors. As there were nearly 8,000 commerciales made, the numbers seem a little high for customising.

**METAL BADGES— THE CLUB IS HAVING ENAMEL & CHROME BADGES MADE FOR MOUNTING ON CARS. PRICE WILL BE \$8.50. ORDERS FOR BADGES, AND DEPOSIT, MUST BE MADE IN ADVANCE. Place your order with Andrew Rankine.**

### Spare Parts News

Progress in the spare parts department has been a trifle slow this month, owing to your officer having been involved in the annual hassle of stocktaking. However, as James Dibble would say, here is the news.

We have received a shipment from Sweden consisting of 6 big-boot rubber weatherstrips complete with clips and also 20 clutch release bearing clips — prices to be announced in the spare parts catalogue which you will receive shortly. New parts currently in stock include L15 radiator hoses, bumper bar supports, tie-rod end socket sets, and spare parts manuals, also gearbox drive flange seals.

You will see in the forthcoming catalogue that our range of 2nd hand parts is quite extensive and is to be expanded. A rough guide is that we have brake and clutch parts, generators, starter motors, horns, instruments, L15 motor complete, and sundry motor parts, fuel pumps, air cleaners, steering and gearbox parts, road wheels, also a considerable number of body panels.

The spare parts committee (see later) can also arrange for you resleeving and kits for your brake cylinders — we also plan a change over system on brake drums and shoes. We also anticipate receipt of an order for front wheel bearings arriving within the next couple of weeks. I intend to ask at the August general meeting for volunteers to form a sub-committee to assist me in the operation of spare parts. Interested members may also ring me to indicate their willingness.

Alan Thomas.

# 10% DISCOUNT

The Parts Fund, with improvements, has now been incorporated as a part of CCOCA – and is now called the Citroen Classic Owners Parts Fund. Members of the fund will now receive a worthwhile 10% discount on parts. There is no actual subscription to the fund – membership is open to full members of CCOCA who lend the club \$40 for the period of their membership, which is refundable in cash or parts on leaving the club. The purpose of the fund is to give the club financial teeth to acquire parts from all parts sources – for example, the large supply of secondhand parts recently purchased, and the many new and secondhand parts available from overseas.

Members of the fund will also have first call on scarce items. Participation in the parts fund has a double-barrelled advantage as far as cost goes – firstly the member benefits from the 10% discount, and secondly the increased capital for parts gives the club more power to obtain parts at lower prices.

Apply to Alan Thomas, spares officer, for membership form.

## SITUATIONS VACANT:

1. Four members required to help in running of spare parts. Qualifications: Enthusiasm. It has become apparent over the last few months that the spare parts area has grown greatly. Because of this, the amount of work required has become too great for one person. For this reason, Alan and the committee have decided to form a sub-committee to maximise the efficiency of the parts operation. Interested applicants please contact Alan Thomas, 874 2302.

2. Editorial assistants/journalists. There is a mountain of material waiting to be found in some of our libraries. All it needs is someone to spend a little time researching. You can help in other ways too. Contact the editor.

## FOR SALE:

DS21 – Ex rally-car. Fuel injected. 10,000 miles, body damage, best offer, or would buy body to suit same. Apply Craig Jeffrey, c/o Mt. Maxwell, Molesworth, Vic., 3718.

Light Fifteen and DS19 – see Andrew Rankine for further details.

WANTED – 2CV Must be in good condition, reward paid for information leading to successful acquisition. Lindsay Moore, 861 6440.

WANTED – 2CV for restoration, need not be going, but must be complete. John Locke, 24 Margaret Street, Canterbury, Vic., 3126. Phone 830 5503.



## Windcheaters and T-shirts

are available on order from the club in a choice of colours, and in either the Roadster design, or club motif. Windcheaters are very good quality (Exacto) and are available at only \$10-00, and T-shirts at \$5-00. Also available are childrens T-shirts with a smaller motif (the club can also print any of the above designs on your own garments) Let the spare parts officer, Alan Thomas, know your size, and colour preference.

The secretary has available four different types of poster available – Roadster, 11BL with attractive back?drop, 22CV, and 2CV prototype.

New mufflers, and radiator hoses are available from Spares Officer.

French Spare Parts Catalogues (\$15) and 1938 Sales Catalogue reprints are also available from Alan.

## Special Tools:

Roger Brundle (509 0441) has the following tools for hire – prices are for the hire period of one week.

Spanner for adjusting brake shoe eccentrics 50c.

Tool for adjusting synchromesh 50c.

Valve spring compressor \$1.

Vernier gauges \$1.

Stub axle nut spanner \$1.

Steering ball pin extractor \$1.50.

Block for removing rear torsion bar \$1.50

Front hub extractor \$2.

Upper ball joint extractor \$2.

Outer front wheel bearing extractor \$2.

Stub axle inner ring nut extractor \$2.

Upper swivel ball spanners \$2.

Extractor body for drive shaft spigot cup or ball joint \$2.

'A' frame for towing Light 15. \$2.

Lower ball joint extractor \$3.

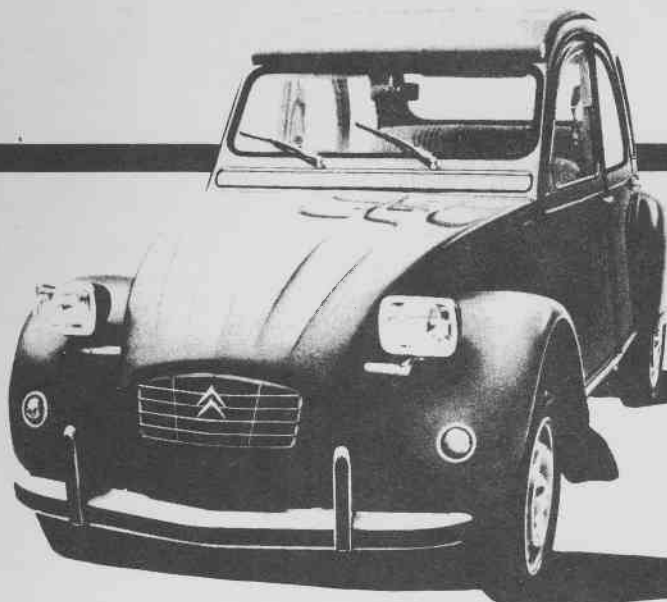
Collets for ball pin extractor \$3.

Collets for spigot cup extractor \$3.

Chain block and tackle \$3.

Deposit : One tool- \$10 ; Two or more \$25-00.

Revenue from this source goes towards the purchase of special tools for the club.



CITROËN ^

It's a little known fact that many centuries ago, when the camel made its first appearance (at the Sultans Court Show - where else?), it was a very different kind of animal.

For example, it had four big 15" wheels, Michelin radials and front-wheel drive for easy traction over sand-dunes and wadis.

As official Babylonian Government fuel tests showed, it was very economical on petrol (although actually the desert was full of the stuff); and very sensibly it had an air-cooled engine (because the desert certainly wasn't full of water).

In those days, too, the camel wasn't just a single-seater job. Camelling journalists of the day were particularly excited by its four nicely-shaped, hard-wearing seats and all-independent suspension which gave remarkable comfort - even on long inter-oasis journeys.

The camelling public were appreciative of the easy access through four doors, the 9.3 cu ft boot (to hold the Instruction Book, because it was written on crashing great tablets of stone), as well as the 10,000-mile major service intervals and cheap replacement parts.

Indeed, although the thought hadn't really struck us until now, you might almost say the early camel was not altogether dissimilar to today's Citroën 2CV.

But then it appears something went radically wrong.

Some major environmental upheaval, perhaps? More probably, too many Camel Clinics and other bits of half-baked market research, prompting camel breeders to meddle with evolution.

Too much Government legislation, even? Who knows?

The end result, alas, is there for all to see. In fact, the only sensible primordial feature of the original camel which still remains is the sunshine roof.

In contrast, at Citroën we've never really mucked about with what nature obviously intended as the ultimate solution to the problem of reliable, comfortable, low-cost transportation (£1,648 inc car tax, VAT and seat belts). We know when we're on to a good thing.

# A CAMEL IS A CITROËN 2CV DESIGNED BY A COMMITTEE.

Price correct at time of going to press. Price includes seat belts, car tax and VAT, but excludes number plates. Delivery charge £56.46 (inc. VAT). Please enquire about our Personal Export, H.M. Forces and Diplomatic schemes and Preferential Finance scheme. Check the Yellow Pages for the name and address of your nearest dealer. Citroën Cars Ltd., Mill Street, Slough SL2 5DE. Tel: Slough 23808.

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