

# FRONT DRIVE

THE MAGAZINE OF THE CITROËN CLASSIC OWNERS CLUB OF AUSTRALIA INC.

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ADJUSTMENT



COVER FEATURES 2CV BROCHURES WITH TINTIN, FROM 1983 TO 1986.

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**PRESIDENT:**

Leigh Miles  
16 Harrow St, Blackburn South  
Victoria, 3130  
Phone [03] 9888 7506 - AH,  
9794 3351 - BH

**SECRETARY:**

Sue Bryant  
59 Albion Rd, Ashburton  
Victoria, 3147  
Phone [03] 9885 3179

**TREASURER:**

Ted Cross  
173 Power St, Hawthorn  
Victoria, 3122  
Phone [03] 9819 2208

**SPARE PARTS OFFICER:**

Mel Carey  
10 Omeo Highway, Lucknow  
Victoria, 3875  
Phone [051] 52 1040

**ACTIVITIES OFFICER:**

Peter Fitzgerald  
297 Moray St, Stk Melbourne  
Victoria, 3205  
Phone [03] 9696 0866

**PUBLIC OFFICER:**

John Couche  
31 Broadway, Belgrave  
Victoria, 3160  
Phone [03] 754 3583

**COMMITTEE MEMBER**

Presently Vacant

**EDITOR:**

Bill Graham  
87 Rosemary Cres, Frankston North  
Victoria, 3200  
Phone [03] 9786 2710

**LIBRARIAN:**

Robin Smith  
9 St Aubins Avenue, North Caulfield  
Victoria, 3161  
Phone [03] 9527 5429

**CLUB SHOP:**

Leigh Miles  
16 Harrow St, Blackburn South  
Victoria, 3130

## FROM THE DESK

Readers will have noticed the heavy-handed innuendo in the last editorial, implying that after Cit-In and while investigating the alternative life-styles to be found in the idyllic, but hash-smoke-wreathed vicinity of Nimbin [true], I might have headed off, never-to-be-found, into the sunset with a local tattooed and body-pierced nymphet. The name of Moonbeam McSwine has been bandied about in some quarters. As with the premature reports of Mark Twain's death, I must advise you, dear reader, that such suppositions are greatly exaggerated.

However, I'm glad to say, that, despite my extended absence enjoying various pleasures to be found north of the Murray River, last Front Drive got to you in good shape, courtesy of the standby efforts of *El Presidente*. This present issue also has gone together smoothly with minimal input from myself, courtesy of Leigh [again] and she of the nimble [keyboard] fingers, Sue Bryant. I'm finally getting the feeling after of years of editorship that my desired style is rubbing off, and that younger and more capable hands are moving in to close the breach, and prove that being FD editor is really not too hard.

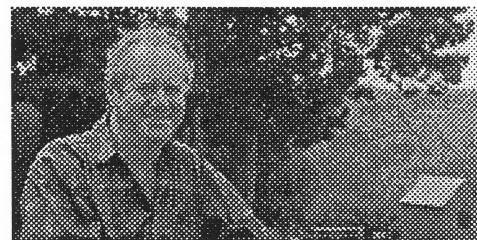
Those of you who went to OzTraction at Koroit/Warrnambool will have had this issue in your "Goodie" bag as alternative entertainment, should that have been found necessary [highly unlikely].

In the next issue of Front Drive a full report on the delights of the OzTraction Weekend will be published, for the benefit of those who were not able to join us for the Event.

For you all, I am sure this issue will again provide you with entertainment and worthwhile information to help you pursue your Citroën interests.

You might care to note how Jean Pirot, of *Traction Universalle*, [France] viewed my impact there, during and following the 10th ICCCR, last year. Maybe it would be better, Mr Burns, if "some power would NOT give us the gift of seeing ourselves as others see us"!

Bill Graham  
Editor



## HONORARY LIFE MEMBERS

NANCE CLARKE	1984
JACK WEAVER	1991

**CCOCA MEMBERSHIP**

Annual Membership	\$30
Overseas Postage	Add \$9

**CCOCA MEETINGS**

Every fourth Wednesday of the month, except December, Canterbury Sports Ground Pavilion Room, cnr Chatham and Guilford Roads, Canterbury, Victoria. Melway Ref 46 F 10, or the Anchor & Hope Tavern, Church St, Richmond.

Citroën Classic Owners Club of Australia Inc. and Front Drive postal address is PO Box 52, Balwyn, Victoria, 3103.

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## PREZ SEZ

**F**irst things, first. The committee and I extend to all members of CCOCA [and their friends and family] a very warm welcome to the Club's Annual Rally.

Members will be aware that each year the venue for this event moves from city to city. Over the years we have visited a number of delightful cities in rural Victoria — many of them on more than one occasion. The objective has been over more recent years to ensure that the event moves from the east, where it is easier for our northern members to travel, to the west, to facilitate the attendance of members in South Australia, and beyond. Longer term members will recall, I hope fondly, events in Echuca, Swan Hill, Harrierville, Beechworth, Bendigo, Ballarat, Kyneton...

This year, in common with both Cit-In '95 and OzTraction '94, we have sited OzTraction in a rural centre where the Club has members. We have made use of these members 'on the ground' to assist in arranging this important weekend. So I must take the opportunity to thank not only Ted and Helen Cross, who have worked tirelessly to ensure a great weekend, but also Roy and Esther Begelhole — the Club's "Feet on the Ground".

### inside...

Without their efforts, this weekend would not have been possible.

1997 will witness a real first for the Club in the hosting of this event. For the first time we will hold OzTraction outside Victoria! Two reasons for this. Firstly, it answers to an extent the criticism that CCOCA is not really a National Club, but merely

**Don't forget that your membership fees are now overdue. If you do not pay-up soon, this will be your last magazine.**

another Victorian Club. "A National Club", our critics say "would not always hold their events in Victoria." [More on that matter to come.] Secondly, ACT member Mike Neil has offered to be our 'feet on the ground' for next year's event.

We have already received offers from both members in South Australia and the CCCSA to participate in hosting the event in 1998. I realise this is thinking a long way ahead, but given that Cit-In has been planned through to 2002, in Tasmania, planning to 1998 is nothing extraordinary.

As regards events outside Victoria, you will note in A-tractions that

Peter Fitzgerald has tentatively planned a dinner in Sydney for our members north of the border.

These interstate activities, and the hosting of OzTraction by our members in rural centres, are not merely in response to comments from members of other Clubs, they extend from the questionnaire of members undertaken in 1995. At that time there was considerable concern that not enough contact was undertaken between the Club and non-Melbourne members — both Regional and interstate based. Whilst some may say these changes have taken a while to reach fruition, I think it is a great credit to both past and the current committee that a move in this direction has been taken.

Don't forget that your membership fees are now overdue. If you do not pay-up soon, this will be your last magazine. Check your addressing sheet with this magazine to determine whether your cheque has been received. If you have any queries regarding your membership, ring Sue Bryant.



### FROM THE DESK

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# TINTIN BEHIND THE WHEEL

**I**t's over 65 years since Belgian George Remi, aka Hergé created Tintin. Since then, the famous stripcartoon books have sold over a hundred million copies, and have been translated into more than 40 languages. But for the petrolhead, Tintin is an unexpected joy, a treasure trove of cars old, unusual, forgotten or simply beautiful. For throughout his life Hergé grew to love cars more and more — and the thrill of speed, in particular — and although Tintin never had a vehicle of his own, he would beg, borrow or sometimes steal to avoid being without wheels.

Even better for the car nut, Hergé was obsessed with accuracy: from windscreen to wingnut, from headlamp to header rail, from trafficator to trunnion, almost every vehicle is drawn with the minutest attention to detail. Leaving aside white mongrels, quiffs, plus-fours and blistering barnacles [whatever they may be], Matt Bishop goes into anorak mode to give us the low-down on a selection of the automotive gems.

## THE CALCULUS AFFAIR, 1956

Most Tintin spotters agree that this is Hergé's masterpiece. Tintin and his bosom pal Captain Haddock travel to Borduria [of *King Ottokar's Sceptre* fame] in search of their great friend, the absent minded Professor Calculus, who has been kidnapped by the Bordurians.

Eager to offer their assistance, Thompson and Thompson are seen coming to a somewhat abrupt halt outside Haddock's home, Marlin-spike, in their CITROËN 2CV. The poor vehicle is the 425cc version, which replaced the 375cc car in 1954.

Once in Borduria, Haddock and Tintin hail a taxi [a SIMCA ARONDE — a 1951 - 55 model], but the Bordurians are as thuggish as ever, using a CITROËN TRACTION AVANT [Thuggish in a Citroën? Ed] to barge the Simca off the road and into a river. The Traction concerned is in fact a Normale, which was produced between 1935 and 1957. The Big 15 [as it was known in Britain] had a wheelbase 180mm longer than that of the Légère [or Light 15], and was thus roomier and heavier to drive.

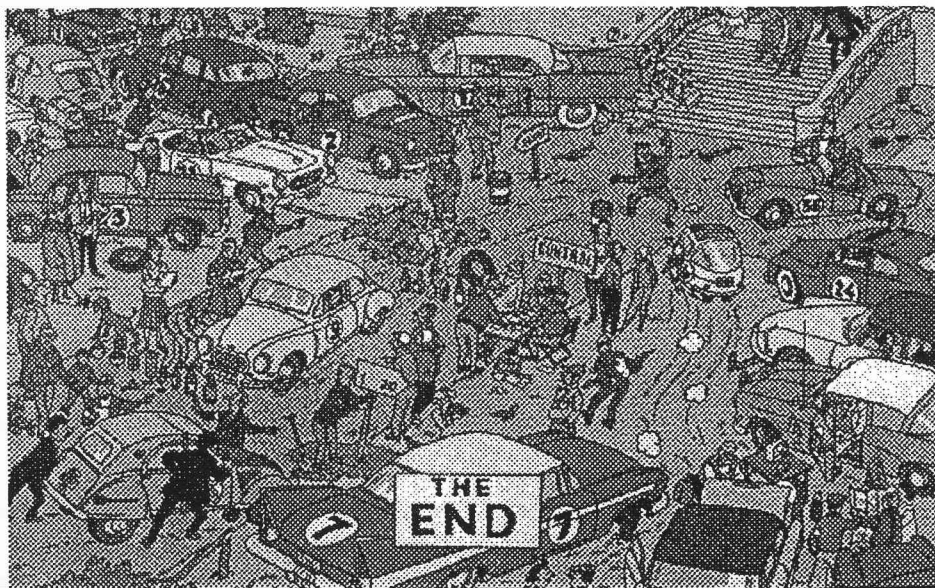
Not surprisingly, neither Tintin nor captain Haddock are drowned.

## THE RED SEA SHARKS, 1958

This story concerns gun running and slavery, and is set in Khemed, the setting for *Land of Black and Gold*. While Tintin and Haddock are busy in that far-off land, the insufferable Jolyon Wagg [first seen in *The Calculus Affair*] has decided to stage a rally in the Captain's garden. A nightmare for Haddock provides a feast for us. The contenders, clockwise from top right: TRIUMPH TR2, VOLVO PV544, BMW ISETTA, CITROËN DS19, OPEL OLYMPIA REKORD, FORD TAUNUS 12M, DE SOTO FIREFLITE, CITROËN 2CV, AUTO UNION 1000, PEUGEOT 403, MERCEDES-BENZ 190SL, PORSCHE 356, MGA COUPÉ, BMW 501, ALFA ROMEO GIULIETTA, CADILLAC COUPE DE VILLE. Our money's on the Porsche.



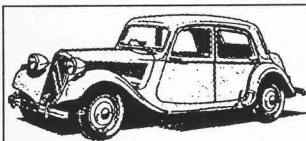
Reproduced from "Car" December 1994. Copyright for the drawings: Casteman; copyright for the English editions: Methuen Children's books.





# A-TRACTIONS – NEWS FROM THE NOT SO SLENDER

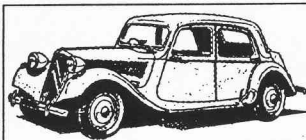
## JUNE EVENTS



7-10th — Austraction '96, incorporating CCOCA Annual Awards — Warrnambool/Koroit. What more can we say!

Wednesday 26th — General Meeting — Speaker — (to be confirmed) — Canterbury Sports Ground.

## JULY EVENTS

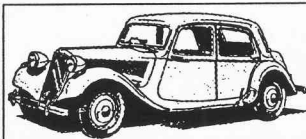


Sunday 7th — First Technical Day — Mel Carey Spare Parts and technical information forum to review parts and information needs of our members plus a technical demonstration. Venue: Peter Fitzgerald's, 297 Moray Street St. South Melbourne. BBQ facilities available. BYO everything else.

Saturday 13th — Annual Bastille Day Dinner — Cafe de France, Burwood Road Hawthorn. All bookings through to Peter Fitzgerald by the 6th of July.

Wednesday 24th — General Meeting — Wine, Cheese and internet surfing night at Peter Fitzgerald 297 Moray Street South Melbourne NOT at the Canterbury Sports Ground.

## AUGUST

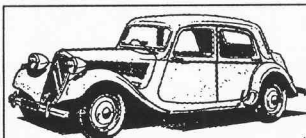


Sunday 11th — Winter Warmer Run to Daylesford — Joint run with the CCCV.

Late August — Sydney member's dinner Date to be confirmed but it will be a Saturday night.

Wednesday 28th — General Meeting — Speaker — Canterbury Sports Ground.

## SEPTEMBER

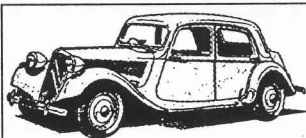


Sunday 8th — Economy Run — Destination to be announced.

Saturday 21st — Technical day at Hekas.

Wednesday 25th — General Meeting — speaker — Canterbury Sports Ground.

## OCTOBER

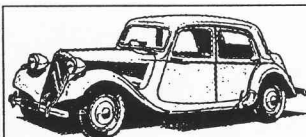


Saturday, 5th — Technical Day at Melbourne Citroën. [Please note the change from Sunday to Saturday.]

Sunday, 20th — Annual *concours d'elegance* held in conjunction with the CCCV.

Wednesday, 23rd — General Meeting — Speaker — Canterbury Sports Ground. Supper provided.

## NOVEMBER

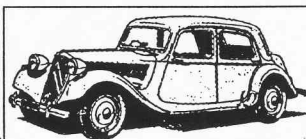


Sunday, 3rd — CCOCA run to Nagambie and Hayward's wineries plus a BYO food BBQ lunch at Hayward's.

Sunday, 17th [to be confirmed] — Annual All French Day.

Wednesday, 27th — General Meeting — Speaker — Canterbury Sports Ground. Supper provided.

## DEC. & JAN 97

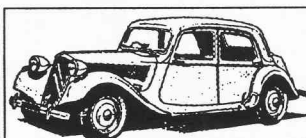


8th — Annual CCOCA Christmas BBQ Lunch.

January, 12th — Gourmet Deli Run.

22nd — Twilight Picnic meeting — Canterbury Sports Ground.

## 1997 EVENTS



February, 2nd — Yarra Valley Wine Tour.

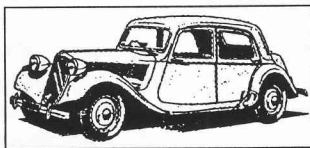
16th — Technical day.

26th — General Meeting — Technical night at Heka's.

March, 9th Australian Formula 1 Grand Prix.

10th National *concours d'elegance* at Domain Chandon.

23rd — First Charity Day run.

*A-TRACTIONS – NEWS FROM THE NOT SO SLENDER***1997 EVENTS**

March [Cont'd.] 26th — Annual General Meeting — Canterbury Sports Ground.  
28th — 31st National Citroën Rally held at Renmark, South Australia hosted by the Citroën Car Club of South Australia.

April, 23rd — General Meeting — Canterbury Sports Ground.

June, Queen's Birthday Weekend — Austraction Rally, Incorporating Annual 1996/97 Awards — Canberra.

*ACTIVITIES REPORT & COMING EVENTS*

**T**here are a number of exciting and unique events coming up on the calendar that you must put in your diaries

**AUSTRACTION '96**

By now the bookings will be closed but if this magazine arrives before the Austraction weekend and you wish to come for a day trip. Please let us know as food will not have been organised for the extras and you may have to bring your own sandwiches and sit on a lonely park bench all by yourself.

**FIRST TECHNICAL DAY 7TH JULY**

Mel Carey has been a busy boy cataloguing all parts and ordering all sorts of interesting new stock to replenish supplies. Some of this new stock will be on hand on this day for sale. The club this year will be putting considerable effort to build up the parts available and build the efficiency of the system. Part of this technical day will be to build a list of parts needed now and in the future so we can best service your needs.

The venue will be 297 Moray Street South Melbourne [Peter Fitzgerald's] in the garaging area, but the house will also be there for the other not so technically minded to enjoy a social atmosphere with a relaxing BBQ.

CCOCASHOP will have Workshop Manuals, Spare Parts Manuals and Body Manual for Tractions and a range of D-series and 2-cylinder cars available for purchase on the day, too.

**BASTILLE CELEBRATION DINNER 13TH JULY**

Please phone through your bookings to Peter Fitzgerald [03

9696 0866] by the 6th of July to confirm your spot. We used this venue last year and had a great night. And the restaurant will even let us come back - amazing. This year it will be politically correct to bring your Citroëns. I was the only radical 'finger in the face' owner to flash French in public last year.

**WINE CHEESE AND INTERNET SURFING NIGHT - WEDNESDAY JULY 24TH**

Well this event started of a simple social event alternative to the hall on a July meeting night. But with recent developments it has turned into what could possibly be one of the highlights on our calendar.

Firstly David Hayward is coming down from Seymour and showing off his wines to get your taste buds going for our visit to the winery later in the year. As well as lots of tasty morsels to boost the taste buds along

The other highlight of the night is a live internet connection with Blair Anderson's internet site in Canada. Not only will you be able to surf around the net looking at the many Citroën sites there, but Blair is gathering together Citroën enthusiasts from England, Netherlands, Switzerland and Canada to join in on the function live with the use of the world wide web and digital wizardry. We will be able to see people from around the globe and have a chat to them to them.

The other point is that any of the other 65 million users world wide will be able to see all of this going on and interact as well.

There will be world wide notification and advertising of this event across the net - so all in all it should turn out to be a very exciting night. A great opportunity for you to have a very steep learning curve as to where the future is heading

**DAYLESFORD WINTER WARMER RUN - SUNDAY 11TH AUGUST.**

Full details to follow in the next magazine, but basically it's a drive leaving Albert Park Lake at 9.15. Visit the Convent Gallery in the morning. A wonderful place with sensation views. Lunch will be at one of the local Hotel establishments. This will be followed by a tour of the local sites and then back to Melbourne. Booking will be essential - by the 4th of August. Phone Peter Fitzgerald [03] 9696 0866

**SYDNEY DINNER — LATE AUGUST — DATE TO BE CONFIRMED**

CCOCA is having a dinner in Sydney towards the end of August to bring our Traction and 2CV members together. Some members are also intending to fly up for the dinner. All people interested in going please call Peter Fitzgerald [03] 9696 0866.





## BACK TO BACK – MAKING TRACKS

**I**n the beginning they were both designed as basic go-anywhere utility vehicles, each being the kind of machine that say farmer John [or Jean] would use down on the farm, to carry essential supplies, or even livestock come to that. But BMC's Mini Moke and Citroën's Méhari, soon took on another, completely different role; it became fashionable — both to drive and to be seen in. Today, the Moke thrives in this Kings road context, having long ago abandoned any commercial vehicle pretensions it may once have had. And the Méhari? That, too, flourishes — but not in Britain, strangely enough as it's never been officially imported by Citroën cars Ltd, in any shape or form.

Austin-Rover, or BMC as they were then, summed up the Moke's capabilities quite simply in an early factory hand-out. Described as a 'rugged run-about with a thousand uses', the Moke, the British company reckoned, could serve as a hotel beach wagon, holiday camp taxi, golf course caddy truck and building site survey vehicle; farmers, estate managers and vets would also find a use for the vehicle, the catalogue rea-

soned. In promoting their utilitarian Méhari, Citroën adopted a similar approach, picturing it loaded down with straw bales, market products [baskets of fish, boxes of flowers and so on] and hard at work carrying barrels of oil at the refinery. It's significant, though, that the latest brochures for the two cars [yes, the Moke is still being made 15 years after it was dropped from the UK market] show the duo skidding and playing about on the beach, as open top fun cars for the young at heart. It's this enviable combination of down-to-earth practicality and dune buggy-style character that typifies both Méhari and Moke.

Labelled by Citroën as '*sobre, solide, sure, dévouée, capable de tout*' the Méhari acquired its name from the Sahara dromedary adopted by Touareg Arab tribesmen. In essence, this light-weight Citroën pick-up was Dyane based; that is, it was constructed around a toughened version of the familiar 2CV/Dyane platform chassis whose origins stretched back to the early thirties. Independently-sprung back and front by means of inter-connected leading and trailing arms, this chassis, in Méhari guise, supported a tubular framework which, in turn, located the vehicle's unusual body panels.

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## BACK TO BACK – MAKING TRACKS

Citroën decided to use a hitherto little-known manufacturing process [little-known in wide-scale mass-produced automotive terms, to be more precise] in designing the Méhari's corrugated bodywork. The panels, 11 of them in all, were made using ABS, the initials standing for Acrylonitrile Butadiene Styrene. Briefly, these thermoplastic pressings are self-coloured, easily repairable and extremely tough, the manufacturing process [based on petroleum and coal by-products] also making them easy to keep clean and, by all accounts, scratch-proof.

In styling the Méhari, Citroën came up with something of a masterpiece. For, not only does it have the option of cut-down doors and a fold flat front 'screen, it also has twin bonnet straps to keep pre-war sports car drivers happy. On a more serious level there's a choice of two basic versions — a two-seater with flat rear deck section, or a 2 + 2, utilising an additional pair of rear seats.

Citroën's inimitable 'hair drier' flat-twin, displacing 602cc, powers the Méhari, the latest versions producing a modest 32bhp [DIN] at 5750rpm. The first Méhari introduced in May 1968, turned out a meagre 25.5bhp in comparison.

This all-alloy, air-cooled ohv engine, driving the front wheels [naturally], is coupled to a modified four-speed manual 'box. Brakes are inboard at the front discs replaced the large drums in '78 — and outboard at the rear; the handbrake works effectively on the front wheels. Steering is by rack and pinion while the suspension consists [as already mentioned] of front leading arms, trailing arms behind twin chassis-mounted helical springs and telescopic dampers.

The Méhari has spawned several interesting off-shoots over the years, the most notable perhaps

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## BACK TO BACK – MAKING TRACKS

being the four-wheel-drive variant known simply as the Méhari 4x4. Identifiable by means of its distinctive headlamp grilles and bonnet-mounted spare tyre, the 4x4 boasts no fewer than three facia transmission levers and up to seven forward gears.

**C**urrently a 4x4 costs the equivalent of £5502 in France [barring taxes] whereas the less complex two-wheel drive Méhari is priced at £3231.

In case you were wondering, incidentally, why Citroën have never imported the Méhari into Britain the reasons are three-fold. First, there are complications in the job of converting to right-hand-drive; second, it would be difficult, if not impossible, to have the Méhari Type Approved; and thirdly, [and most importantly] the cost of conversion, Citroën say, would not be economically viable in view of the limited market in the

UK for vehicles like the Méhari.

If you need proof that the UK market is regarded as limited, you need look no further than the success of the Mini Moke — or rather its lack of success. The Moke started life as a prototype farmer's hack, a sort of Mini Land Rover if you will. The first Moke had a simple spartan tub, two seats and a windscreen. Up front was the by-now ubiquitous 850cc Mini engine, transversely mounted, and driving

the front wheels.

Ignoring the body, however, the biggest difference between the prototype Moke and the everyday Mini, was that the Moke had another engine in the rear driving the back wheels. The Land Rover had four-wheel-drive, so the Twin-Moke as it was known should

When the production Moke finally appeared in mid-1964 — it had but two-wheel-drive. It was further hampered by a lack of ground clearance. It was doomed from the outset.

have it, too.

Alas, it didn't work. Despite many development miles the twin-engined Moke was destined to be

a blind-alley development. The fact that John Cooper had a horrendous accident in a twin-engined Mini at around this time further underlined the problem.

So when the production Moke finally appeared in mid-1964 — it had but one engine and but two-wheel-drive. It was further hampered by a lack of ground clearance and that despite claims from BMC, it was never classed as a commercial and thus failed to attract tax concessions. It was doomed from the outset. Of a British production run of just less than 30,000, fewer than 1,500 were registered in this country.

It was in 1968 that production transferred to Australia where it continued until only recently. In Australia the Moke was greeted as a long-lost friend and, for some reason, the lack of four-wheel-drive did not seem to matter too much. Changes were made to the little car. The puny 10ins Mini wheels were thrown away to be replaced by 13ins examples, helping ground clearance in the process, while the car also grew a little. To accommodate the slightly fatter tyres, an inch or so was added to the wheel arches front and rear, along with plastic mud flaps, and stout perspex side screens were added to the 'screen assembly.

Gradually over the years further improvements were made. The hood was given zip-in 'doors', the 848cc engine gave way to the 998cc A-series unit and the 1,275cc engine was an option. And the car became a cult machine. Roll-over bars were added, even wider wheels, nudge bars front and rear and so on.

In Britain meanwhile, enthusiast Ron Smith felt there was now a market for the Moke so he started to import them. Since 1980 he believes he has sold around 200 though supply from Australia has now all but dried up.

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## BACK TO BACK – MAKING TRACKS

**S**o tracking down a Moke for this feature was easy. A phone call to Runamoke in Battersea and a 1,275cc 'Californian' demonstrator was instantly, and obligingly, made available to us for a day. In the interests of originality and all-round fair play, it might perhaps have been wiser for us to have tried one of the 998cc 'standard' Mokes as the poor old Méhari has to make do with just 602cc and just 42bhp. To this end, our Specification Table covers the less potent, yet more common-place 1-litre Moke. But we're grateful nonetheless to Ron Smith and his team for providing the Californian at such short notice.

No, finding a Méhari was the real problem. We tried virtually everyone and anyone we knew, but to no immediate avail. Eventually, purely by chance, I came across Noel Balbirnie's orange Méhari parked in a London side-street. After a little gentle persuasion [!], Noel bravely agreed to take part in this story. Our thanks, therefore, go out to him as well.

It was while Noel was in Holland three years ago that a newspaper ad for a fairly early Méhari two-seater appeared. To cut a long story short, he ended up buying the Citroën for just £370 which, considering the majority of Dutch-domiciled Méharis fetch between £800 and £1000, seems quite a bargain. The car is, nevertheless, quite sound its plastic body [it was originally green] having stood up to the rigours of the road well.

'Officially', his Méhari dates from 1973 but it could, in fact, have been built prior to that as its rear suspension carries the inertia dampers fitted to pre-seventies 2CVs and Dyanes. Its speedo is currently reading 56,000km. Since 1979, Noel has replaced the gearbox to eliminate a fourth gear whine and substituted an Ami twin choke carburettor for the original. And because the Méhari comes without seatbelts [a remarkable state of affairs in this day and age],

Noel has devised his own lap-and-diagonal set-up which looks rather suspect but at a quick glance seems strong enough.

The Méhari's tent-like hood peels off in sections to reveal, well, not very much at all. When stripped of its voluminous rear covering, there doesn't really appear to be a great deal to the car; sure, the interior is very spacious, hard-wearing and practical but it's also spartan and scantily-equipped with few cockpit dials, gauges or controls, for example.

'Our' Californian Moke, meanwhile, came with all the trimmings. Externally, one can't fail to notice the hefty cow-catcher nudge bar at the front, nor the substantial roll-cage that's almost as high as the car is long. The high-backed, twin seats also figure prominently as do the enlarged 13ins wheels shod with 175 section Dunlop Weathermaster tyres.

In comparison with the Méhari, the

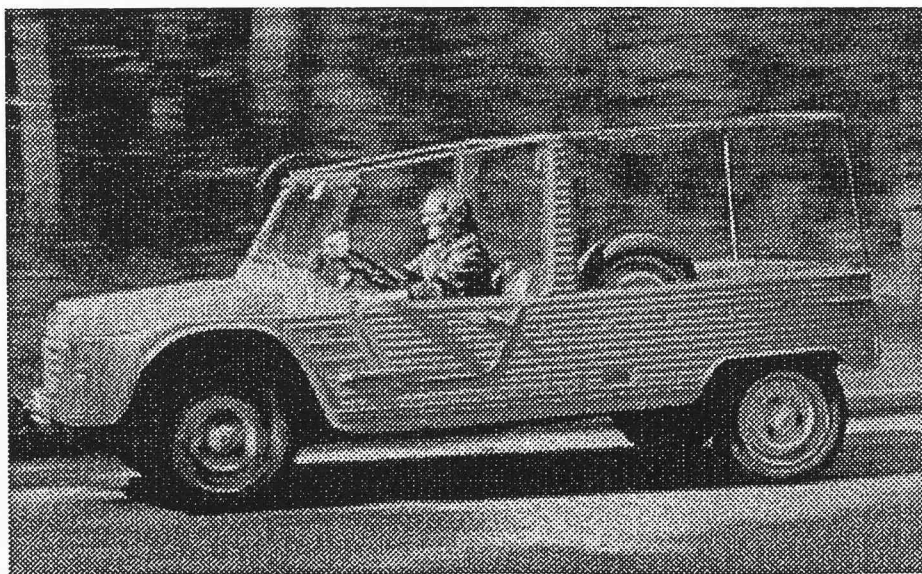
**The Méhari's tent-like hood peels off in sections to reveal, well, not very much at all.**

Moke's dash seems almost over-endowed with switches and instruments galore although in reality it's no better equipped than the basic Mini City saloon. On the floor, the Moke has swimming-pool-style matting and at the back Runamoke's own design of lockable cabinet; but the latest type of inertia seat belts [securely mounted on the Moke's stout roll-cage] do provide a most reassuring sense of security — Méhari drivers take note...

While the Citroën's awning may take five to ten minutes to dismantle completely, the Moke's hood comes down simply and effectively in virtually no time at all. And it folds

away neatly in one go, too, something that can't be said of the Citroën canvas. Both cars have full sidescreens to keep rain and buffeting wind at bay. Doors, though, are optional on the Méhari; incredible though it may seem, it's possible to buy one new with just sim-

(CONTINUED ON PAGE 10)





## BACK TO BACK – MAKING TRACKS



ple chains across the door apertures. Only the French could think of that one.

**T**o drive, the cars are, as expected, poles apart. The Moke in 1,275cc form positively flies off the line, cornering quickly into the bargain thanks to the famed Mini road-holding capabilities and, of course, those fat SP44 tyres. Well-balanced and predictable, the Moke 1,275 is acceptably fast on the straight and super-controllable through bends, understeering strongly yet safely at all times with little roll. Ride comfort is good, the Moke being, overall, an easy and

untiring machine to drive whether it be through Chelsea on a sunny Saturday afternoon or on a hard, press-on trip across country.

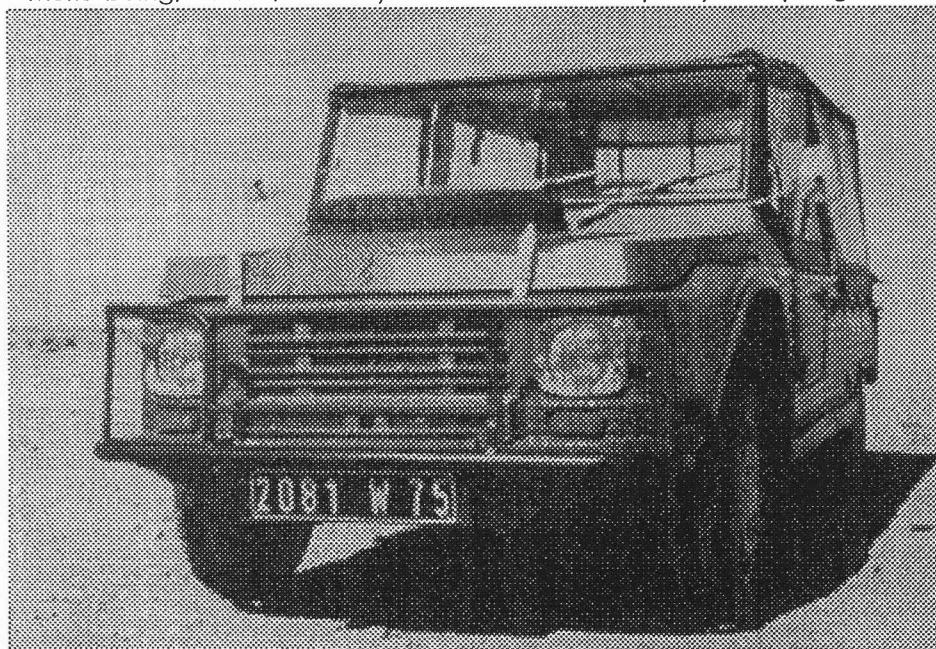
If anything lets the Moke down while on the move it has to be the transmission. In familiar Mini fashion the gearchange is habitually ill-defined and sloppy, the drive-shaft UJs chatter and there's still that annoying transfer gear rattle. And the Californian's gear lever is a little too short, by about 4ins.

The Moke's steering, furthermore, despite its welcome 'feel' and two-and-a-bit lock-to-lock directness, has a pretty uninspiring lock.

Braking is certainly up to the job in hand, although nothing special. Entry and exit, effected by gingerly negotiating the pannier box members on either side, also needs some getting used to.

The Méhari is something else altogether literally! For a start, as there's no legroom to speak of, six-footers and over can forget straightaway about ever driving one comfortably. If you've ever driven an Italian sports car that has its steering wheel far too close to the pedals, you'll appreciate the problem. In other words, get ready to benz ze nees...

(CONTINUED ON PAGE 11)



# BACK TO BACK – MAKING TRACKS

**A**side from a lowish driving position and large, bus-driver steering wheel [both of which tend to exacerbate the above situation], the Méhari behaves pretty much like any normal 2CV or Dyane on the road. Of course, depending on your definition of the word 'normal', that could be a good or bad thing.

Slow though it is, the Méhari isn't that far adrift from the times put up by the 998cc Moke tested by one Australian motoring magazine, back in the late sixties. On top speed and acceleration through the gears, the Moke is clearly superior. Yet the Méhari can still be coaxed along at quite re-

It rolls tremendously around corners, it has the wonderful push-pull gearchange that so many people find off-putting until they actually try it — and, from the outside, it looks 'funny'.

spectable speeds, 65mph at 40mpg being possible all day and night with only the minimum of fuss and bother. True, 0-60mph is lethargic but neck-snapping performance figures are not what the car is about.

Knowledgeable *deux chevaux* people will tell you the Méhari is a difficult car to drive. Noel Balbirnie reckons his example isn't as nice to drive as a 2CV but that's about as far as it goes. Certainly, BRK 630Y has all the legendary 2CV eccentricities. It rolls tremendously around corners, it has the wonderful push-pull gearchange that so

(CONTINUED ON PAGE 12)

SPECIFICATION	MINI MOKE	CITROËN MÉHARI	SPECIFICATION	MINI MOKE	CITROËN MÉHARI
ENGINE	In-line 'four', water cooled	Flat 'twin', air-cooled	BORE X STROKE	64.58 x 70.61mm	74 x 70mm
CAPACITY	998cc	602cc	VALVES	Pushrod ohv	Pushrod ohv
COMPRESSION	8.1:1	9:1	POWER	39.4bhp [DIN] @ 5,200rpm	32bhp [DIN] @ 5,750rpm
TORQUE	50.4lb ft [DIN] @ 5,200rpm	30.5lb ft [DIN] @ 4,000rpm	TRANSMISSION	Four speed manual Front wheel drive	Four speed manual Front wheel drive
FINAL DRIVE	4.2:1 ratio	3.87:1 ratio	BRAKES	Drums front and rear	Drums front and rear
SUSPENSION FRONT	Ind. by unequal length transverse arms, tie-rods, rubber springs, telescopic dampers	Ind. by leading arms, interconnected coil springs, friction dampers	SUSPENSION REAR	Ind. by trailing arms, rubber springs, telescopic dampers	Ind. by trailing arms, interconnected coil springs, friction dampers
STEERING	Rack and pinion	Rack and pinion	BODY	Monocoque, all steel	Steel chassis, ABS body
DIMENSIONS	MINI MOKE	CITROËN MÉHARI	PERFORMANCE	MINI MOKE	CITROËN MÉHARI
LENGTH	3.05m	3.51m	MAX SPEED	134kph	104kph
WIDTH	1.31m	1.57m	0—60MPH	27.9sec	30sec
HEIGHT	1.42m	1.63m	STANDING ¼ MILE	23.5sec	22 sec
WHEELBASE	2.03m	2.37m			
KERB WEIGHT	648kg	523kg			
TYRES	5.60 - 13	135 - 380			



## BACK TO BACK – MAKING TRACKS

many people find off-putting until they actually try it — and, from the outside, it looks 'funny'.

**B**ut to temper all the body lurching, understeer, groans, squeaks and lack of torque — the engine is

noisy, too, say the critics — comes a superb ride and an unexpectedly high level of refinement. Once mastered the Méhari should be an extremely civilised form of transport — and it's fun to drive as well.

Conversely, while the Moke suffers from all the Mini's foibles — drive-shafts, gearboxes, rear sub-frames to name but three, getting in and out can also be trying at times.

Summing up the Méhari's good points one can say it's incredibly practical, cheap to buy and to run and, an important advantage this, in today's rationalised world it represents 'something different'. Plenty have been built by Citroën [some 132,000 to date] so finding one to buy abroad ought to be no problem. Not only is it refined and capable far beyond its station in life it is, without doubt much more of an 'off-road' vehicle than the Moke

On the debit side, the terrible driving position, the bouncy road manners [both of which need acclimatisation] should be mentioned. Pre-1978 model-year cars will have the controversial front drum brakes but seat belts could be a headache on all versions. Goods carried in the rear are all too visible and vulnerable to theft while spares [especially for the unusual body] might be difficult to obtain in a hurry. And motorways with nasty head winds, not to mention steep hills in general, can make Méhari driving a misery!

As for the Moke, it benefits from known Mini mechanicals — hence replacement parts and service will be cheap and easy to locate anywhere in Britain. It's a tougher, more conventional [sic] kind of car

than the Méhari which, in turn, is more economical with fuel, but little match on the performance front. Fast, energetic driving favours the charismatic Moke, one of the sixties cult machines, immortalised by The Prisoner, Carnaby Street and others.

Conversely, while the Moke suffers from all the Mini's foibles — drive-shafts, gearboxes, rear sub-frames to name but three, getting in and out can also be trying at times. A

Moke Register has recently been started, but the Méhari comes under the auspices of the nutcase 2CVGB enthusiast group and the all-enveloping Citroën Car Club, a situation that must make Méhari ownership more practical and enjoyable.

As far as appearances are concerned, office opinion had it that the original Mokes, always very thin on the ground in Britain, were better looking than the pricey and rather tarty Californian breed currently available. That said, Runamoke's Californian was a bundle of fun, creating a great deal of attention wherever it went.

Conclusions! If you appreciate the finer points of Citroën 2CVs, you'll plump for the Méhari as a matter of course. Should Deux Chevaux hold no fascination the Moke must get the vote as a 2CV is one of the archetypal love/hate cars. On a personal note, I'd settle for a Méhari with decent legroom but then I owned a yellow 2CV6 for a year and half not so long ago, and loved it...

Reprinted from *Classic and Sportscar*, July, 1983.

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A FULL REPORT WILL BE PUBLISHED NEXT ISSUE!*



*Above: A 2CV featured prominently in recent advertising for South Pacific Hotels. The implication was that even if you arrived at one of South Pacific's prestige hotels in a 2CV you would receive the same attention and care as if you arrived in a luxury limousine! [2CV drivers in the Club will be pleased to hear, I am sure, that SPH is so generous to drivers of Rolls Royces and Cadillacs!]*



# DOROTHY FIXX – ADVICE TO THE VEHICULARLY DISTRAUGHT – ADJUSTING D-SERIES HYDRAULIC TRANSMISSIONS – ONE METHOD

I have now received two queries from members regarding the adjustment of the hydraulic transmission on their D-series cars", writes Dorothy Fixx. "I have always used the method that is shown in this article. I first found it in an edition of 'The Citroënian', the magazine of the Citroën Car Club of Great Britain. I suppose it was

This was invented years ago by Citroën. The transmission was not fully automatic, but could have been if they had wanted it. It is what we now call an automatic stickshift or semi-automatic transmission. Citroën called it "Citromatic", and it is more wonderful than their famous hydropneumatic suspension.

Check the simple things first! If your Citromatic sounds like it has marbles in it, bleed the centrifugal regulator at the bleed screws provided at the top [see drawing]. The Citromatic will not work correctly if there is air in the brakes, so bleed at the carb, too.

If the gears grind, check to be sure that the clutch release lever is moving forward far enough. If it is, and the gears still grind, there is obviously something wrong with the clutch and pressure plate. NOT THE CITROMATIC! The gears would grind, even with a standard shift.

Many people get confused about Citromatic equipped cars especially if they have never had any previous experience with type of shift. Most owners who have driven them for years do not understand the workings of this hydraulic marvel. When I think of it, it must be as close and effortless as you can get to a fully automatic transmission without the undesirable aspects of the fully automatic transmission such as loss of power, loss of control, flexibility, economy, etc.

The Citromatic is quick, positive, safe, economical, effortless...IF...all units are working and are adjusted properly. No four speed shifts faster or more accurately than a DS with Citromatic. No declutching manually,

(CONTINUED ON PAGE 15)

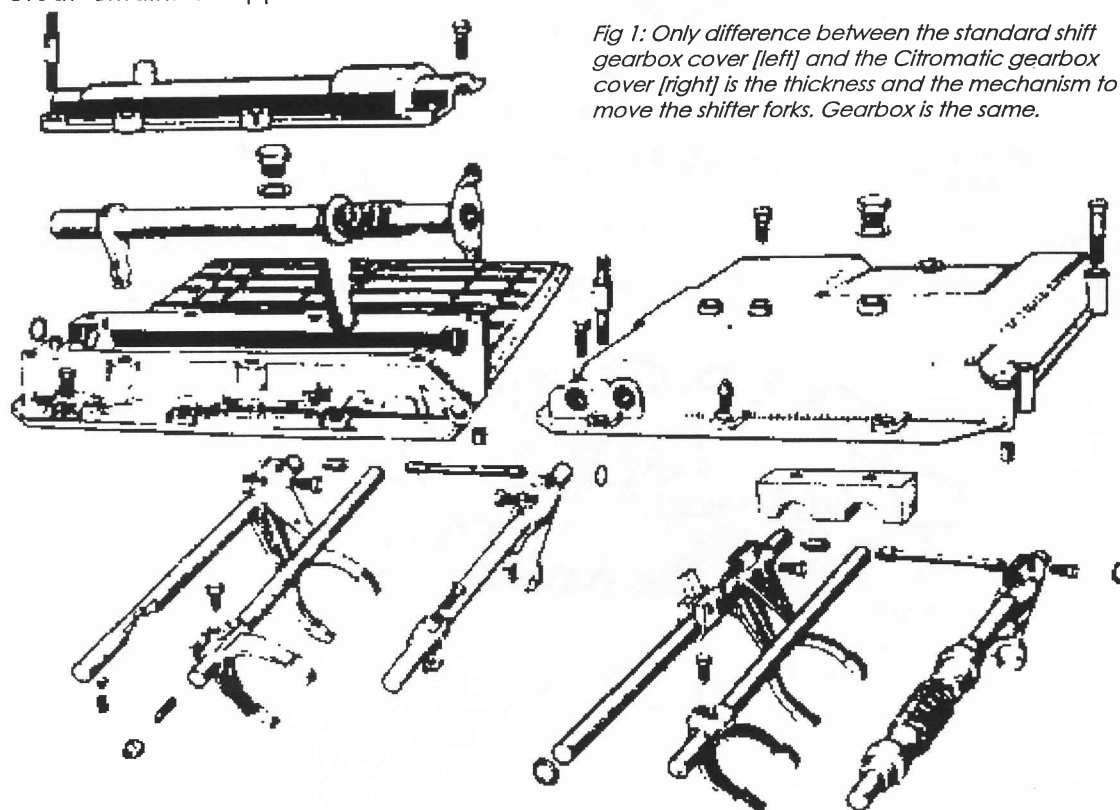


Fig 1: Only difference between the standard shift gearbox cover [left] and the Citromatic gearbox cover [right] is the thickness and the mechanism to move the shifter forks. Gearbox is the same.

about ten years ago that it was published, and given the reference in the article to 'Citromatic' I believe they may have derived the article from an American journal, but I am not certain. Anyway I must thank CCOCA member Stuart Pekin for introducing me to this article. I hope members find it useful."

Operation and Adjustment of the Citromatic Transmission.

An automatic transmission that gets the same fuel mileage as a standard shift has been the dream of many automakers for years. The trick is to eliminate the clutch, but retain a direct drive with no slippage.

As with most problems that owners have with their Citroëns, 99% of the problems that develop come from simple and avoidable causes. The single biggest problem with Citroëns is caused by mechanics working on the car when they do not understand how it works! They never fail to put the entire car out of adjustment and cause more damage than years of normal wear could cause.

The following article will help you put your Citromatic back in adjustment, no matter how screwed-up some previous owner has made it. Follow the instructions, step by step.

Please remember one thing:

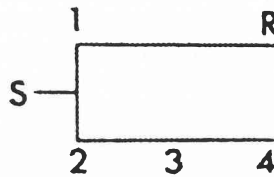
# DOROTHY FIXX – ADVICE TO THE VEHICULARLY DISTRAUGHT –

## ADJUSTING D-SERIES HYDRAULIC TRANSMISSIONS – ONE METHOD

no wait for synchronisation, no foot slipping from the clutch pedal, no clutch slip [riding the clutch], no left leg cramps in traffic, quick shift from 4th to 3rd are just a few of this transmission's good points. One of the transmission's great points is ease of shifting even in hard cornering when extra power is needed. In a normal four-speed equipped car you must remove one hand from the steering wheel, de-clutch with the left foot, move gear lever with right hand, release accelerator, etc. Valuable time is lost in these motions! The control of the car may be lost by split second timing in an emergency cornering situation. Citro-matic is INSTANTANEOUS and when adjusted properly the shifting is precise.

**M**ost people are not patient enough to take time to understand Citro-matic. Most mechanics do not understand it, therefore cannot adjust it properly. Most Citro-matic clutches are so improperly adjusted that they have overheated and warped which causes clutch chatter and give erratic operation. Once all of the components of the Citro-matic are adjusted properly the only slippage the driver will get is if the car is started off in a gear higher than it should be [2nd or 3rd when it should be in 1st]. Have you ever observed the shift pattern closely?

Typical Citroën engineering! The transmission must be in neutral to start for safety [the shift block can only be in neutral of the starter will not turn]. First and reverse are directly across from each other, this is ease of parking [minimum movement of the lever]. A properly adjusted DS will idle into a parallel spot just by touching the brake pedal and shifting from 1st to reverse to 1st again. By the way, the brake pedal on the DS is to operated by the right foot only — NO LEFT FOOT ON THE BRAKE PEDAL AND RIGHT FOOT ON THE ACCELERA-



TOR like an American auto > this will DEFEAT ALL ADJUSTMENTS. The *champignon* or mushroom foot brake rubber sphere is designed for a minimum of travel its entire life and is lower than the accelerator pedal for a special reason — quick reaction time from the accelerator to the brake with the right foot, your foot only has to pivot on the heel to depress the brake and pivot to the right for the accelerator. If this is not so in ant Citroën D model the accelerator linkage needs adjustment. This is all leading to proper driving of the DS Citro-matic.

When all the adjustments are carried out properly to the driver's satisfaction, from this time on, normal maintenance should be a clutch adjustment e v e r y 10,000 miles [5,000 mile if the car is used primarily for stop and go driving]. EXCEPTION: when any of the components in this circuit are replaced, then adjustment of that component is necessary.

The transmission differential, clutch pressure plate, clutch disc and release

bearing are identical to the manual cars except for the internal shift rods and forks and the operation of the clutch. Instead of a mechanical clutch cable and rod there is a clutch slave cylinder and fitted to the transmission top covers are five servos or pistons [one each for 1st, 2nd, 3rd, 4th and reverse]. Lines leading from the hydraulic gear selector [shift block] to the transmission connect these servos and are tied together in one bundle. Like any hydraulic clutch slave cylinder it has one function — to engage or release pressure on the clutch release fork to operate the clutch mechanism. This lengthy description is necessary because the manually shifted car clutch free travel is also adjusted by feel of distance or clearance, which can be checked quickly with thumb and finger, but NOT the Citro-matic.

he Citro-matic clutch is adjusted so that at 650-800 rpm the clutch components are just about ready the connect to each  
(CONTINUED ON PAGE 16)





## DOROTHY FIXX — ADVICE TO THE VEHICULARLY DISTRAUGHT — ADJUSTING D-SERIES HYDRAULIC TRANSMISSIONS — ONE METHOD

other. Disc, pressure plate and flywheel. Putting it more simply, the clutch release or throw-out bearing is depressing the fingers on the pressure plate to the point where the clutch is just about to engage slightly but is still disengaged. For comparison on a manual shift car, the point reached when you are in 1st gear and have eased out on the clutch pedal to the point where 9 inch would cause the car to start to creep away on the level. MANUAL SHIFT AND CITROMATIC CLUTCHES ARE ADJUSTED DIFFERENTLY.

**T**he manual clutch is adjusted without the engine running and the clutch pedal out [clutch engaged position] by pressing with your right thumb against the adjusting bracket [clutch fork] toward the radiator. Turning the adjusting screw clockwise reduces the clearance, anti-clockwise increases it. That's for the manual shift car owners, but for you poor drivers of the Citro-matic, let me continue as we are going to the meat and potatoes of it.

### CITROMATIC CLUTCH ADJUSTMENT

Start the engine and bring to normal temperature. If the front of your car has been wrecked and the crank extension will not fit through the air duct without binding you must either remove the duct or make-up a tool from ¼ or 5/16th rod [obtained from a hardware store] and weld about two inches of 14mm or 9/16th inch allen key to the three foot long rod. We use an old army surplus rifle cleaning rod that has a "T" handle that revolves. This must take the place of the crank extension piece and is inserted in the front of the transmission and must be pushed in approximately one inch. This makes contact with the transmission main clutch shaft which passes through the clutch disc and is supported by the pilot bearing in the flywheel. Now, back to the adjustment procedure: engine at normal op-

erating temperature; turn the large air screw [brass] located at the front bottom left of the carburettor clockwise until seated and slightly tight, this should slow engine speed; check and adjust engine idle and mixture screws to obtain a smooth idle of 650-800 rpm [check tachometer]; this is the speed the engine will be idling at when you stop for any reason in driving — so at this speed we want the clutch disengaged [primary idle].

Since the clutch disc is connected to the transmission main shaft and our crank dog is *pushed in* with the crank or our home-made tool, by changing the adjustment we can adjust the DS clutch properly. Turn the adjustment bolt anti-clockwise [with the engine running] [WARNING: *watch fingers in moving pieces — belts, fan etc.*] until the tool [or crank extension] starts to rotate, this will mean that the clutch is starting to engage. Then, turn the adjustment bolt clockwise until the tool just stops turning [clutch just disengaged] then continue to turn the bolt one turn clockwise. You are now finished with the clutch adjustment. Note: If the shaft will not stop turning even after turning in the adjustment bolt all the way, then the pressure plate is broken and a new clutch is necessary. This is a fairly *common occurrence* even with manual shift on high mileage cars. If you try to adjust any other components of the system and you have a faulty pressure plate or clutch you will not be successful at all.

### ENGINE IDLE

The next step [provided the clutch adjustment was successful and the clutch/pressure plate mechanism is working properly] is to adjust the engine idle. I prefer 1,000 rpm secondary idle. To adjust unscrew the large brass screw you previously screwed in, back out [anticlockwise] to obtain 1,000 rpm. Now, step on the foot brake and the engine speed

should drop to 750-800 rpm [primary idle]. When you let go of the brake the engine idle should rise to 1,000 rpm [secondary idle]. You are now finished adjusting idle. Note: Remember 1,000 rpm minus 750 rpm equals 250 rpm [for future reference].

### CENTRIFUGAL REGULATOR

The next unit we will adjust will be the centrifugal regulator, located above the high pressure pump and driven by a small belt from the pump. This belt must not be overtightened or the result will be premature bearing failure in the centrifugal regulator. The centrifugal regulator has one purpose only. That is to start discharging fluid from the clutch slave cylinder between 800 to 1,000 rpm of the engine [a very slight amount]. When the engine speed increases from primary to secondary idle speed, just enough fluid is released from the clutch slave cylinder to make the clutch start to engage. When the clutch starts to engage just slightly the car starts to 'creep' or move slightly in first or reverse. Therefore the operation of the regulator is as follows: When in first or reverse gear and your foot is on the brake pedal the engine is at primary idle and the regulator has clutch disengaged and the car stays still; when you remove your foot from the brake pedal the engine speeds up [approx 250 rpm] to secondary idle which in turn causes the weights in the regulator to signal to the clutch to start to engage and the car begins to creep. It is only normal to have your foot on the brake when stopped at stop-lights or signals or for reversing. This is why it is important to use the right foot only for braking — so that the regulator is released and the primary and secondary idles work properly.

If the car will not creep when the foot brake is released in first gear it will need adjustment. Shut off the engine. The adjustment is an

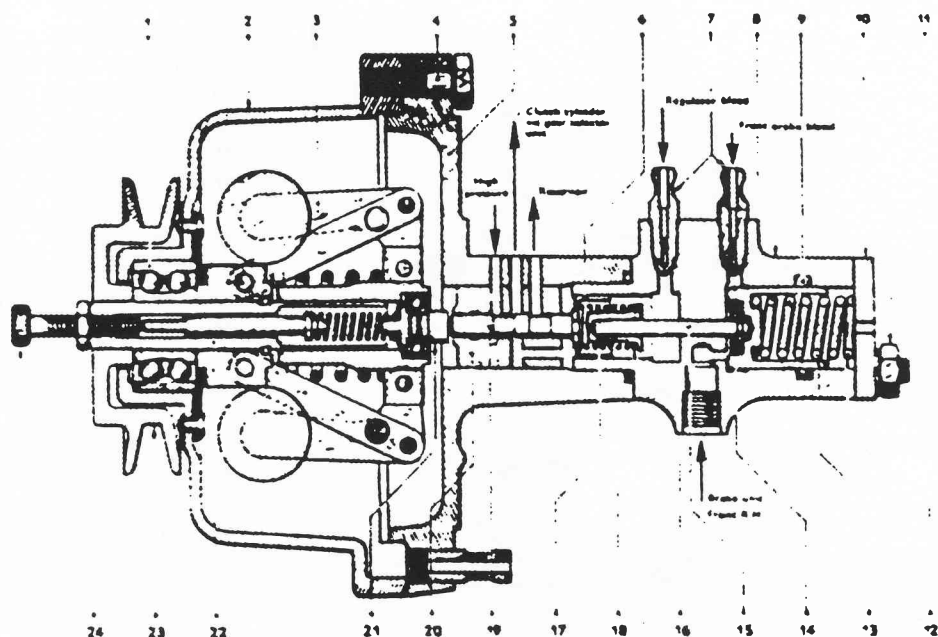
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# DOROTHY FIXX – ADVICE TO THE VEHICULARLY DISTRAUGHT –

## ADJUSTING D-SERIES HYDRAULIC TRANSMISSIONS – ONE METHOD

8 mm headed bolt which goes through the centre of the centrifugal regulator pulley and is locked in place with an 8 mm nut. Unlock the nut and turn the bolt out [anticlockwise] one turn. Lock nut up, then start engine and check creep again. Continue this adjustment [anticlockwise to increase the creep, clockwise to decrease the creep] until the car is set to creep at a speed you are comfortable with. [If the car stalls on selection of first gear — screw in the adjustment screw until you achieve the desired creep.] This is fine adjustment and should be undertaken in increments of one turn, or less, at a time. If the car stalls every time on starting out or coming to a stop usually the seals on the piston inside the regulator are swollen and hard, causing the piston to stick in the bore. This is a simple unit and consists of a set of centrifugal weights and springs acting on a sliding piston controlled by the adjustment screw. Its only purpose is to activate between the difference in speed of primary and secondary idle to release a minute amount of fluid from the clutch slave cylinder.

**L**ocated on the right side of the transmission, its function is to guarantee that the transmission's gear 1st and 2nd are engaged before the clutch can engage [for safety] by stopping fluid return from the clutch slave cylinder if the gears are not fully engaged. Adjustment procedure is as follows: Hydraulic pressure up, engine off, gear selector in neutral; loosen two 11 mm headed bolts which hold control to transmission, pull unit toward front of gearbox, stop and push backwards slowly until the unit snaps rearwards [this is the neutral position], retighten the bolts.



A sectional view of the centrifugal regulator

Key: 1. Governor mechanism 2. Governor weights 3. Governor springs 4. Clutch re-engagement control 5. Clutch re-engagement control 6. Clutch re-engagement control 7. Clutch re-engagement control 8. Clutch re-engagement control 9. Seal 10. Seal 11. Seal 12. Seal 13. Seal 14. Seal 15. Seal 16. Seal 17. Seal 18. Seal 19. Seal 20. Seal 21. Seal 22. Seal 23. Seal 24. Seal

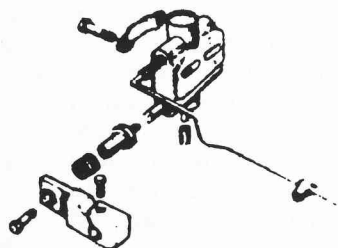
Generally, this unit never gives any trouble and almost never gets out of adjustment. Adjust ONLY if it is removed for repairs.

### CLUTCH RE-ENGAGEMENT CONTROL

This control is attached to the intake manifold in front of the carburettor primary throttle shaft. Its function is to control how quickly fluid is discharged from the clutch slave cylinder between gear changes [how fast the clutch re-engages during the shifting from 1st to 2nd, 2nd to 3rd and 3rd to 4th]. There are two adjustments: 1. On the side of the unit facing toward the driver's side of the car, a straight slotted screw protrudes approximately 8 mm, sometimes with a knob fixed by a small

screw. The knob has a small raised post allowing it to be turned only 350°, but by unscrewing the small screw it can be turned without stopping on the small peg. If the speed of the clutch re-engagement between gears is too slow turn the screw in [clockwise] until you are satisfied with the clutch re-engagement speed. If the engagement of the clutch is too fast unscrew it [anticlockwise] until it suits you. This screw will not unscrew and fall out and sometime must be adjusted several turns depending on the condition of the clutch [such as when a new clutch is installed]. After getting the adjustment set you can re-install the small knob with the set screw...install the knob straight up which will give you approximately 175° of fine adjustment in either direction. 2. EXCEPTION: someone may have removed the carburettor and did not fasten the unit on the idle position and the shaft adjustment in relation to the carburettor idle may have been moved. There is a small hole [usually plugged with a

(CONTINUED ON PAGE 18)





# DOROTHY FIXX – ADVICE TO THE VEHICULARLY DISTRAUGHT

## ADJUSTING D-SERIES HYDRAULIC TRANSMISSIONS – ONE METHOD

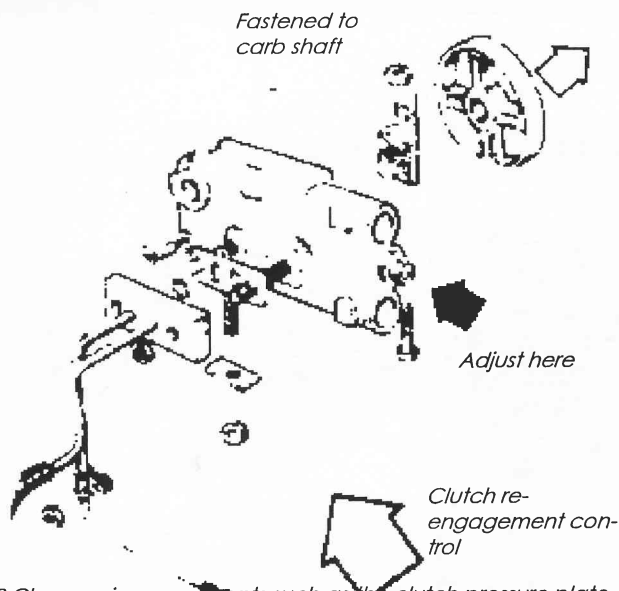


Fig 2: Changes in components such as the clutch pressure plate, or a change in fluid viscosity, can make the need to adjust this imperative!! Some adjustments may require that the adjustment screw be turned several turns. This adjusted has a very fine thread, so adjustment is not too sensitive.

plastic plug] just above and to the rear of the shaft centreline [towards the front of the car]. This is an adjustment/alignment hole. Normally with the throttle closed a 2.5mm wire should pass through the hole in the housing and go into the line-up hole in the internal shaft, locking the unit and the throttle shaft tight. If it does, it is all right, if not proceed as follows: Grip control unit shaft with thin vice-grip pliers near body of the control, hold shaft from turning, loosen the 8mm bolt in clamp between the control and the carburettor shaft, push 2.5mm wire in hole in housing and turning shaft against spring tension until the wire falls into the hole in the shaft and locks the unit from turning, release pliers and align shaft coupling and tighten the 8mm bolt. After re-alignment of the control, re-adjust the unit as #1 above, if necessary [it usually is]. Then on your road test after adjusting the unit drive the car at approximately 90 kph [55 mph] in 4th gear on a level road, move the gear change control to 3rd gear without releasing the accelerator pedal. The shift should be smooth and unnoticeable...if not

adjustment procedure is as follows: With left hand reach under and to the rear of the shift block, there you will find a rubber plug with the largest part about 11mm in diameter. After removing the dust cover you will have access to a 3.94mm hole. When 1st gear is selected with the control lever a pin 3.904mm diameter x 50mm length will slide into the line-up hole approximately 30mm and lock 1st gear position in the shift box. If not a mirror will allow you to see the hole. The best method to line-up the hole [if it is not already] is to have someone move the control lever to the left/right/in or out slightly in order to line the hole up in the shift block so that the pin can be inserted. Once you have the pin inserted into the shift block properly then you must adjust the shift control lever to the corresponding 1st gear position. To do this you must first

stop and fine adjust by the knob [or screw if your no longer has the knob on it]...road test and readjust to suit your driving style. Total time involved is about ½ hour.

There is only one adjustment on the shift block itself and it very seldom, if ever, needs adjustment unless the shift block is removed from the car. Ad-

remove a dust cover from the metal cowl to the rear of the shift block [under the hood]. This plug is about 1¼ inches in diameter and is made of rubber. It exposes two 8mm bolts which tighten a clamp between the control lever mechanism and the shift block. To adjust, loosen the lower 8mm bolt and align the shift control lever to the 1st speed detent [pops into place]. Then tighten the lock bolt. Remove the alignment pin and reinstall the dust cover [plugs]. You are finished.

This unit is faithful and almost never gives trouble but is often accused of being the cause of trouble. One exception is when it becomes gummed up and stiff [especially in cold weather]. Then it must be flushed out or removed and cleaned. A hissing noise from the shift block can be caused by misadjustment or a sticking piston which can be remedied by adjustment or removal and cleaning. SERIOUSLY, this unit is like all Citroën hydraulic units and is well engineered and needs little attention. Should service be required never take it apart in place. It is easily removed from the car to be repaired on the bench.

[Dorothy apologises for the quality of these drawings, but they are as good as the originals supplied.]

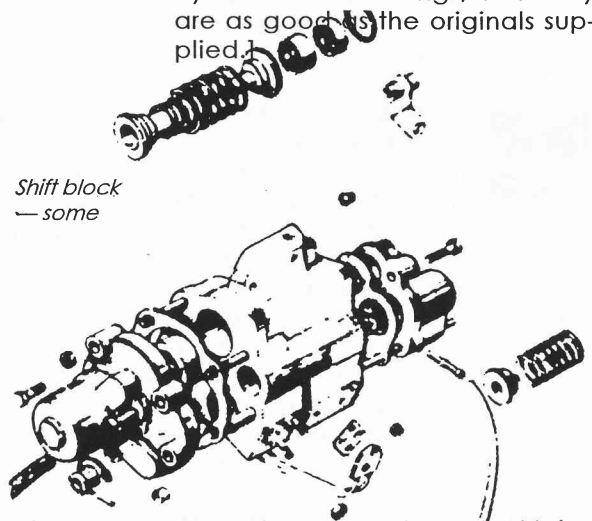


Fig 3. SPECIAL NOTE: Before you look for any trouble in this unit, be sure that you check the belt on the centrifugal regulator. The car will not move if the regulator is not turning. DO NOT OVERTIGHTEN THE BELT! Should the belt break, the car can be driven by using the manual engagement control that is located under the steering column.

## DOROTHY FIXX REFLECTS-

MORE ON ADJUSTING THE 4-CYLINDER TRACTION CLUTCH

**F**or the recent edition of our club's magazine, Mr. Propsting kindly prepared and presented an article on how he repairs and sets up Light Fifteen and Big Fifteen clutches. Included in the article were a couple of useful tips in the form of part numbers for the substitute clutch throwout race and the spigot bearing. Good stuff and useful to have. But I have a confession and one or two additional comments to put forward. So bear with me, good folk.

I had inferred that I had read Gerald's article closely, but in reality, I'd been under a fair bit of work pressure out here in the Mallee, oddly enough in replacing tractor clutches that the farmers had knackered during the autumn fallowing!

Now the most common cause of failure in tractor clutches is due to the operator slipping the clutch while turning at the end of a furrow. Hence, on my closer reading of Gerry's notes, I would definitely shy away from his suggestion of slipping the clutch on the Light Fifteen by way of a "shock absorber" to avoid the need to change down to low gear while moving slowly. The results of slipping the clutch can, at worst, be quite horrific, and it is

far better to engage the lower gear. Where the change is "non-synchro", it is not too hard to smooth the change by "double declutching", even on a Light Fifteen box.

Also, I have some comments to pass on which should, in many cases, speed up the process of clutch adjustment that Gerry advises. The "cockies" [city folk: Please read this as "farmers" - Ed.] out here in the Mallee really know the value of a quid, and probably would be very unhappy with the size of my bills if I was to apply my standard hourly rate to Gerry's approach. But of course, I would end up a much richer man - err, woman - at the end of the week!

Some of you will know Les Tapping from Adelaide, and recall that some years ago, he brought his rather nice ID 19 engined Light Fifteen to an Easter get-together at Bendigo. He had fitted the original L15 clutch and flywheel to the engine in this machine, a clutch which he subsequently told me had never been completely satisfactory, despite having been rebuilt at least twice by local clutch experts! Judder and general unpleasantness had become so pronounced that Les was all for abandoning the venue, cutting short the weekend, and heading back

to Adelaide with care, caution, and a strong faith in divine assistance. We suggested that he detour via our workshop and let us look at this recalcitrant clutch, with a view to eradicating the problem. This we did, in both aspects - first looking into the problem, and then applying a remedy.

Les was quite overcome - no, not by the size of our account, but by the fact that it was the first time since he had owned the car that he had a satisfactory clutch.

Our workshop method is simpler, saves time, and it works. I shall detail this method in the next issue of the magazine. It has the beauty of not requiring any special tools or the removal of the gear-box from the bell-housing.

Dorothy Fixx [with assistance from Jack Weaver].

### COMING UP IN DOROTHY FIXX.

- R CHECKING / REBUILDING AND SETTING LIGHT FIFTEEN CLUTCH [NEXT ISSUE]
- R CLUTCH JUDDER — CAUSES & RECTIFICATION [IN THE CAR]
- R RESTORING WORN TAPERS IN FRONT HUBS
- R RESTORING WORN FRONT STUB AXLES.

## INTERNATIONAL COVERAGE?

**W**hat do you know about the Citroën Classic Owners Club of Australia?

'Front Drive' is their magazine and the editor, Bill Graham, has kindly sent me the latest edition. Allow me to let you savour some of the life of antipodean Citroënists.

The periodical boasts a fine logo and on the cover of the magazine was a great picture of the roadster of Fred Annells, that graced the 10th ICCCR. Inside, Bill, in his own inimitable style, tells the story behind the taking of this and some other photos of the roadster. Bill is a great friend of the ladies, as this history shows.

An important part of the contents is the reprint of a competitive road test

of an ID20 and an NSW RO80. The RO80 has fine consumption and the ID is very comfortable.

An amusing technical article explains the use of the hand brake in emergency situations, such as the delivery of a pizza.

The information for members of coming events and meetings, but at this is quite esoteric I will say no more.

One interesting aspect of the Club is the presence of a contact in France, whose proposes to sell cars and parts for 2CVs and other fine machines, before they are sent to the breakers. He is a translator and goes by the name of Alan Brown.

The work of Roger Williams is beautifully

evoked shown. Bill speaks of Roger's four-speed transmission and the other other parts he makes and sells.

In the Classified Advertisements can be found offers to change from Lucas ['Prince of Darkness'] lights to Marchal and for wooden dashboards, complete with Smiths instruments.

Another article tells of the participation of André Citroën in the construction of the Titanic. First published in 'The Citroënian', the English magazine. The article concludes badly regarding this hypothetical collaboration, likening it to a marine response to Waterloo.

Jean Pirot  
Reprinted from  
*Traction Universelle*

## RAID '96 – UPDATE

**R**aid Australia '96 newsletter No 6 has just hit our desk from Raid Editor, Ralph Hibble, in WA. Not only is Ralph alive and kicking, but so is the Raid!

Todate, some 83 cars have been registered to participate, though with inevitable withdrawals, a final figure of 75 starters is expected. That makes a retinue of 150, or so people — the population of a small township! And all of them adventurous, fun-loving and fun-

seeking Citroën enthusiasts, going into some of the most interesting country in Australia, from Uluru [Ayres Rock] on 27 July to the WA coast and ending-up 6,000kms later at Kalbarri, 600kms north of Perth on 24 August.

Safety is a high priority, and there is great safety in numbers. If you go, you'll be able to dine-out for years on the tales of adventure you will gather. Food-wise, you could decide on Jack Absalom's "Lightning Ridge Galah Soup" as featured in Raid Newsletter 5!

For last minute action, contact Steve Wedell [02 486 3394].

Also, there are Raid "Tour Add-Ons" to get you there and back. For details, contact Steve Wedell [Sydney starters], Ralph Hibble [WA starters - 09 459 1636] or Phil Ward [SA starters - 08 373 3404].

As well as Aussies from all-over, you'll be with people from Switzerland, Germany, Austria, Netherlands, UK, France and NZ.

Bill Graham  
Editor.

*This advertisement, for Gordon's Gin appeared in Car magazine, December, 1987.*





## TRACBAR DUNDEE '98

**T**he following article, hastily translated was found in the latest edition of French club magazine *Traction Universelle*. As yet, CCOCA knows nothing of these plans, but hope to be able to bring more information to you soon. In August 1998, I will put at your service my experience of the roads and my love for Traction, by organising a journey of about 5,000 km, over 21 days, on an Australian route, reserved exclusively to TRACTION with completion date such as to ensure you can attend the ICCCR in Belgium.

I have lived in Australia for more than three years, and I would wish to share with you the happiness of browsing across a representative portion, composed of bitumen and of track, of mountain and of ocean, of town and of bush, of animals and of friends to meet.

The reason for this marvellous journey will be the tenth anniversary of departure of the World Traction Tour. No more than THIRTY Traction will have the possibility of participating to this event.

The idea of this unpublished trailer of tip of world attracts interest many sponsors and local media, this will allow me to help you to undertake this adventure for, a low budget of around 38,000 FF [including plane tickets and sea transport for your car there and back, customs, lodging, food, gas on the basis of a car and of two people.]

I know that it is not a cheap business, nor a small expense, but know that I am sure that this journey will offer memories of a lifetime of an exceptional journey, a journey made of contrasts, of

meetings, of discovering and of aesthetics. The main objective being of pleasing and of being pleased.

If you are a friend of a Traction, a traveller wishing to discover this tip of the World, I invite you to make me aware of your interest in participating in this TRACBAR DUNDEE 98.

The pace will be voluntarily limited in order to encourage a pleasant journey for all, for this first who, book, will be 100% happy and among the privileged who will be there to participate.

Yours in Traction from Australia,  
Eric Massiet du Biest.

Further information can be gained from Eric at PO Box 3223, Nerang, Qld, 4221.



## LETTERS

D

ear Mel,

In response to a conversation with you at Cit-In '96 about getting various spares for Tractions at a reasonable price, timing chains can be obtained from Renold Aust P/L, 42-44 Robert St, Wickham, NSW, 2293. [049] 615 681, fax [049] 692 541. In Sydney, 12 Victoria St, Lidcombe, 2141. [02] 649 3112, freecall 008 042 115. There would be Renolds outlets elsewhere in Australia. As to quality of the chains the rep at Renold said most chains in the world were either made by Renold or made on machines made by Renold. He also said the best way was to bring the old chain as a sample. Four cylinder Tractions, early DS and ID have the same chain and originally had a joining link.

R 1 x 66 piece chain, part number 114038 \$22.10 + tax

R 1 x 26 link chain, 114038 \$4.30 + tax

D and CX have the same type, but are longer with the end riveted, which Renold do while you wait.

R 1 x 70 piece chain, part number 114038 \$23.40 + tax

R 1 x no 107 rivet, part number 114038 \$1.10 + tax

Shock absorbers for Light 15 and Big 15, front Gabriel 17069-P7042G, rear Monroematic 1101091.

Fan belts for Light 15 and Big 15 try a store dealing in farm machinery and ask for a "big section belt", 39".

Brakes, most brake specialists can

arrange for master and slave cylinders to be re-sleeved. My last prices \$34 [slave] \$55 [master]. With brake cylinders re-lined with stainless steel they are better than original and if you use silicone brake fluid they will be trouble free for a long time, although the cost of this fluid is expensive. The most reasonable price is from Forté Lubricants P/L, 6-8 Queens St., Nunawading, Vic.

Rebuilt Lucas generators. They are rebuilt by Lucas in England. They have push-on connections and fit straight on to the cradle, although the cradle back end may need to be modified as it is stepped down to slightly smaller diameter.

All the best in Citroëning,  
Keith James

## CLASSIFIED ADVERTISEMENTS



## HOOD LINING BOWS

ON BEHALF OF ONE OF OUR CCOCA MEMBERS I SOUGHT ACCESS TO LIGHT 15 HOOD LINING BOWS AS A PATTERN, IN THE LAST EDITION OF FRONT DRIVE.

NEIL RANKINE HAS KINDLY RESPONDED TO THAT REQUEST. IN THE MEAN TIME I'VE MISPLACED THE ORIGINAL REQUEST LETTER! IF YOU ARE THE PERSON SEEKING THE BOWS PLEASE CONTACT NEIL AS FOLLOWS:

NEIL RANKINE, RMB 9005, VIA WONTHAGGI, VIC, 3995. TEL [056] 72 1185.

MANY THANKS, NEIL FOR YOUR RESPONSE. [ED]

## FOR SALE CITROËN CX 2400 PALLAS

C-MATIC, 1980. EXCELLENT CONDITION THROUGHOUT. FEATURES INCLUDE: ELECTRONIC WINDOWS, POWER STEERING, DUAL AIR-CONDITIONING, LEATHER SEATS, TINTED WINDOWS, RARE BONNET EMBLEM, SUN ROOF. SEE PHOTOS ABOVE.

VIC. REGISTERED TO DEC. '96. \$8,900, OR OFFER.  
PHONE [07] 3807 3270

## FOR SALE

VARIOUS PANELS, MECHANICALS, SEATS, LIGHTS ETC FOR LIGHT 15.  
PHONE: SIMON TAYLOR  
[03]9696 9519 [AH]

## FOR SALE

1954 LIGHT 15 CREAM  
55,000 MILES, COMPLETE WITH W/SHOP MANUAL & SOME SPARES.  
GOOD CONDITION \$11,000 OBO  
CONTACT ADRIAN SCHOOF  
[054] 42 4044 [BH]  
[054] 39 3261 [AH]

EXPRESSIONS OF  
INTEREST

## ID OUTPUT SHAFTS

IAN ANDERSON IS EXPLORING LOCAL PRODUCTION OF OUTPUT SHAFTS TO ADAPT ID 4-SPEED BOX TO TRACTION [LIKE PETER HUGHAN'S - SEE FD 13 [1]], BUT OUT OF EN25 STOCK.

EX-HAWKER DE HAVILLAND MACHINIST.

SUGGEST \$425 PER PAIR.  
ENQUIRES TO IAN ON [03] 9397 7414 OR [015] 560 394.

## FOR SALE

A-TYPE, 1919-20  
2 SEATER TORPEDO BODY  
POTENTIAL CONCOURS WINNER.  
FEATURED IN FRONT DRIVE,  
VOL 14, NO 3  
RELUCTANT SALE, IN PURSUIT OF TRACTOR!  
\$15,000, OR OFFER.  
SPARE ENGINES AND OTHER PARTS  
ALSO AVAILABLE AT NEGOTIABLE PRICE.  
CONTACT: ROB STEWERT  
[050] 39 2261 [AH].

## CCOCA SPARES

*THE FOLLOWING NEW TO THE CLUB PARTS ARE AVAILABLE FROM  
MEL CAREY NOW!*

*ALL ARE TO FIT LIGHT 15/11BL, UNLESS OTHERWISE SHOWN.*

- R SYNCHRO HUB KEY*
- R PINION SHAFT SPLIT WASHERS*
- R EXHAUST MANIFOLD FLANGE NUTS – STAINLESS STEEL*
- R GEARBOX TOP SHAFT LOCK WASHER*  
*[CAN ALSO BE USED FOR BOTTOM]*
- R GEARBOX RUBBER MOUNTING BOSS*
- R GEARBOX GASKET SETS*
- R GEARBOX GASKET SETS – BIG 6*
- R REAR ENGINE MOUNT*
- R REAR VIEW MIRROR*
- R PEDAL PADS*
- R RUBBER UNDERLIGHTS AND HANDLES*
- R BIG BOOT RUBBER - TOP*
- R BIG BOOT RUBBER - BOTTOM*
- R SMALL BOOT PETROL FILL PIPE GROMMET*
- R SCUTTLE VENT RUBBER*
- R TRIANGULAR DOOR RUBBERS*
- R SMALL BOOT SURROUND RUBBER*
- R FRONT MUD-FLAPS*
- R WINDSCREEN DRAIN TUBE*

*MEL IS AVAILABLE TO TALK TO YOU AT ANY TIME.  
WORK HOURS, AFTER HOURS [WITHIN REASON PLEASE]...ANY TIME.*

*SO, RING HIM & HAVE A CHAT.*

*[051] 52 1040 OR [018] 516 126*

*IF HE'S NOT AROUND, BE SURE TO LEAVE A MESSAGE ON HIS  
ANSWERING MACHINE, OR TALK TO COLLEEN.*

