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March, Nineteen Hundred and Eighty-Three

For those members unable to attend the AGM I am pleased to be able to report that all went smoothly and there were useful suggestions from the floor. This points to a problem the committee members often mention – lack of feedback. Please let us know if we are providing the kind of events and publications you want for example. On the subject of Floating Power, I am very much on the look out for articles – anything from a full length historical or technical piece to a few details and photographs of your car or cars. Please help me to keep F.P. supplied with interesting contents.

This is the time of year when I remind you that subscriptions are due on the first of April BUT I am very glad to say that the rate is unchanged at £13.00, so please send your subscription as soon as possible to the Treasurer, David Shepherd (form enclosed).

Various changes in club personnel take effect from the AGM: Tony and Maria Hodgekiss are resigning from their joint secretaryship having put in countless hours on keeping the club running. Steve Hedinger has kindly taken over the membership side – from now on the secretary's job will be split – but we urgently require a general secretary. This post would cover the everyday enquiries and correspondence of all types (except membership) and servicing the committee, i.e. minutes and agendas. Please contact Tony or Maria if you are interested. Martin Lloyd has resigned as Pre F.W.D. coordinator. Having set up this section and produced what I feel is a fascinating series of articles, he believes it is time to hand over to someone else. Roger Dyer, owner of the C4 1X illustrated in the last issue has nobly stepped into the breach.

Tom Evans took on the magazine design and artwork to help out almost two years ago, when Tristram Woolston went abroad, and has been doing the job ever since, assisted by Clive Warner. Now, with increasing family commitments, Tom has agreed to hand over the design and artwork job to Stephen Bull who has lots of ideas for Floating Power.

So, with an enthusiastic team running the club, I am sure we can look forward to a successful future for the TOC so long as we have the support of you – the members.

Bonne Chance NH



BREDA or bust!

by Syd Griffiths



PART TWO SUCCESS

The Story so far:

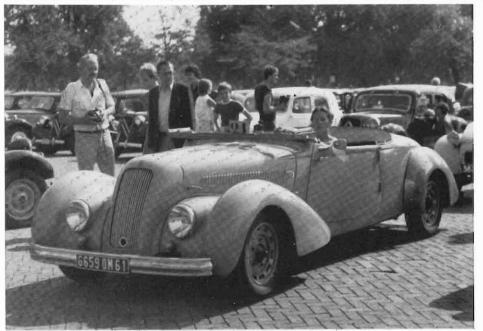
The Traction Owners Club convoy has managed to arrive in Breda on the first day of the 5th I.C.C.C.R.

The weather during the whole weekend of the rally was incredible, cloud-free blue sky and glorious sunshine. Some members of the TOC party, being true Brits, overdid the tan (sorry, no pun intended) on the first day, myself included. I spent the next two days wincing whenever anybody tapped me on the shoulder. At about 5pm most of us were on our way back to the campsite to change and prepare ourselves for the barbeque being held that evening, Greg and Kathy Hayes and I popped into the camp shop to pick up some booze. Most people had bought bottles of 5th I.C.C.C.R. Côtes du Rhone at thirty bob a bottle but I opted for beer. While we were in the shop Greg bought a bottle of lemonflavoured Dutch gin which was suitably called "Citroën Genever". Despite its rancid petrol-like appearance "Citroën Genever" was a great success amongst those who ventured to taste it.

The Dutch clubs organisation had provided live music, a bar, cooking equipment and also a stall selling fresh sausages, steaks and chops at very low prices. Bread was available free of charge as were Wallies (pickled cucumbers – I ate eight of these!). We settled down near the stall and we were all soon into the feast. We were joined by some Dutch and Belgian friends who had ventured over to Norfolk earlier in the year. One of them Geert, we had all met at the previous year's Jaarfest in Deventer.

A good few beers later we were talking about the rally so far, and Geert began to tell me what he had planned for the Concours Competition the next day. All I took in at the time was that somewhere in the plot there were two chickens and a sheep! The Barbeque ended in the wee small hours but not before the annual TOC game of sardines had been played. Some

Above: Your intrepid reporter driving John Howard's Legère. Below: A 1949 special bodied Splendilux.



twelve people crammed inside Nick Hall's tent while he made tea for us all! I climbed into the back of Greg's Normale and went out like a light.

The next morning Kathy woke me up again providing me with a mug of tea. I felt awful and wondered why I had dreamt about sheep all night. Nick discovered the shower block so I went over thinking a good shower would clear my hangover. It certainly did when the hot water ran out halfway through.

Most of us got to Het Turfschip before midday and the Club Shop was rapidly set up right outside the entrance of the exhibition hall. For the duration of the rally this hall had been converted into a Citroën Museum housing not only examples from type A to SM in ace condition but special cars; four wheel drive 2CV's, a rotary engined Ami and rally cars. In one corner an area had been roped off and lit by spotlights but remained empty. A sign on the rope read 1934, 22CV, 8 cylinders?! Film shows ran all day of great Citroën expeditions, and a magician kept the kids amused – all free!



Steve Southgate and family in their Ex. MIRA Road research Big Six.

The Club Shop became the TOC base for the day, everybody doing their bit by helping out on the stall (which was really busy) for an hour or two - cheers everyone. It was also competition day at the rally, there being two major events. The first was a kind of "Jeux sans Frontières" for tractions, i.e. tests of skill driving around a bend keeping one wheel on a painted line in reverse etc. The second competition was the concours. The "Jeux sans Frontières" had two TOC entrants, Antonia Loysen in her racing Light Fifteen, and Allan Sibley in Lucifer. All credit to them both. Stuart Hall would have laughed himself senseless but Antonia tied with a German contestant for first place and Allan finished in third

The concours competition was a superb display, each car driving in turn into the area in front of Het Turfschip where the passengers would get out of their car to show off their costumes. (In Holland marks are not just given for the condition of the car but also for the costumes worn by the passengers and the overall theme of the entry). A commentary on the cars and the themes was being given over a tannoy in English as well as Dutch.



Above: This T45 bus arrived and left in clouds of smoke, unfortunately it received a shunt in the back on the way to the rally. Below: Geert van Waes and friends going to Market in the 5th I.C.C.C.R. concours.



Below: This 11B Roadster from Denmark, has been beautifully restored, but has VW indicators and 'Six' bumpers.

Geert's Commerciale drove into the display area. "This is a fine example of an 11CV Commerciale," explained the commentator, "And the theme behind this entry is a farmer going to market."

Geert and two passengers, all three dressed in traditional Dutch farm clothes, clogs and all, got out from the front of the car. All three walked to the back of the car. Sticking a Churchill-sized cigar into his mouth, Geert opened up the tail-gate. To everybody's surprise, in the back of the car stood a sheep munching away at some straw, oblivious to the applause of the crowd as her supporting cast of two chickens scratched and clucked away beside her. (If you want to know how to sex sheep, buy a farming magazine, do not write to Floating Power). Geert, naturally, won first prize.

That evening was set aside for the rally dinner. Coaches had been laid on for everyone, from all the hotels and the campsite alike so only fools and horses had an excuse to drive. Baby-sitting had also been arranged and the coaches ran about every hour round the hotels and campsite to get you home when you'd had enough.

The TOC party commandeered two tables in the hall with the group on stage, and most of us were soon well oiled enough to be up and hopping about. We rested during the meal itself which was a buffet affair but most enjoyable. It was not that I made the almost fatal mistake of challenging Val (Pink Tornado) Mercer to a dance endurance competition. After an hour the music was taken over by a trad jazz band who came "marching in" from the hall next door. The place went crazy, everyone clapped and stamped as paper plates flew around all over the place. Half an hour later the group took over again as the trad jazz band moved back next door. At the end of the evening I had knackered my dancing shoes and Val settled for a draw. Lucky for her no Guinness was on sale.

The next day, being the last day of the rally we just lazed about in the sun and took our last looks around at the hundreds of cars and the Museum. The rally began to disperse early on in the afternoon and by about three o'clock there was enough room for yours truly to test drive a few Tractions around the arena. I started off in John Howard's Legère and finished off with Geert's concours winning Commerciale. Nobody would let me drive their roadster!! About half past four we were all back at the campsite biding time before making for the evening ferry. The Brices and the Waghorns were having a small picnic and invited everybody over for a drink. In no time at all we had pooled what food was left and Tricia was making an enormous stew. Everything went in, soups, sausages, ravioli, and spaghetti rice, the feeding of the five thousand had nothing on this! A classic end to a classic rally.

Unfortunately the time came to leave. It's a strange feeling driving home after a rally such as the international – you keep looking around wondering "where have all the Tractions gone?"

The next I.C.C.C.R. is in Switzerland, July 1984. I'm already saving up to go!

Syd



TRACTION ARRIERE

A section devoted to rear wheel drive Citroëns produced between 1919 and 1938.

The article in this edition of "Floating Power" has, I believe, been published previously (April 1977, Ed.) in the Citroënian.

It was written by Mr. Edel and is an extremely interesting account of how it felt to

purchase a new Citroën in 1927.

MI.

It was Saturday evening in late August, 1927 when a 7 year old boy and his mother and father travelled in a Citroën 5CV, type C to the premises of W.T. Cave, High Road, Ilford, to take delivery of a new 12/24 Citroën Cabriolet (B14). W.T. Cave was a sole agent for Citroën and the premises in the High Road was a showroom, a solitary Bowser pump which dispensed Shell by the gallon stood on the wide pavement, and Charlie looked after the workshop situated in a kind of mews at the rear of the premises.

There was quite an admiring crowd around the car when we arrived after a few minor formalities and filling the tank from the Bowser; this necessitated lifting the right hand side of the bonnet for the tank was under the scuttle and the filler under the bonnet. The tank capacity was 6½

gallons inc. 1 gallon reserve.

Taking delivery of a new vehicle in those days was a more leisurely procedure and indeed more pleasurable. Our salesman was our host for the evening ensuring that my father became familiar with the new car and its controls and the driving of it, after all the 5CV was a spartan affair; now he had a powerful car with four wheel brakes, electric screen wipers – the gas pedal was on the right – a pleasant improvement to be mastered.

On Sunday we were all ready early for a run in the new car. Reg. No. VW 452. Citroën 12/24 Cabriolet. Fawn, two doors, cloth upholstery in brown pattern, and

very comfortable seating.

Running speeds were for the first 500 miles: 1st gear, 10 m.p.h.; 2nd gear, 15 m.p.h.; top, 20 m.p.h. At the time, 1927, this was acceptable because few cars travelled at more than 30 m.p.h.; – a 'T' model Ford was hard pressed to make 25 m.p.h. Clynos, Morris, Standards and Austins didn't like much more than 30 m.p.h. for very long. 60 m.p.h. was a magic figure one heard spoken of a lot.

It wasn't long before the running-in mileage was completed and my father was handling the car with confidence and panache, gained from experience. Now he was making gear changes 1st-2nd at 10 m.p.h. and 2nd to top at 20–25 m.p.h. and main road cruising at 35-40 m.p.h. In fact he always maintained that the car would run for ever at 35 m.p.h., at this speed the car rode at its smoothest, there was a satisfying resonance of the final drive through the disc wheels unique to Citroën. The highest speed we ever travelled in the car was 50 m.p.h. and the longest day's run was 248 miles. The odometer only registered up to 9999.9 miles and then

returned to zero, a trip recorder was fitted but never worked.

We ran this car from 1927-1936 and must have covered something approaching 100,000 miles. During this period a crown wheel was replaced, a dynamo was replaced, a magneto armature rewound, pistons re-ringed, valves were lapped in every year.

PAMUM HOUSE
LONDON.

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Motor Car International Conculation Codes 1910.

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The original tyres were Dunlop Fort and lasted about two years, subsequent replacements were Avon and seemed to go for about 10,000 miles.

Clutch, gearbox, brakes, steering articulations and wheel bearings were as original but the brake cables were replaced and the exhaust box had a weld job done on it.

The car made quite a few long journeys regularly, i.e. every Easter we toured Devon and Cornwall for a week and climbed the notorious Porlock Hill quite a few times. The Lake District came in for a few visits and also visits to Holland. This was quite an experience. In those days we travelled Tilbury to Rotterdam, this entailed taking the car to London Bridge the day before sailing. There the car was loaded onto the boat and passengers embarked the next day at Tilbury. Very different from the car ferries we come to

expect these days.

Generally speaking the reliability and wearability of the car and its components were as good as with a present day car; performance of course fell far short of present day standards. Roads were not so good and at 30 m.p.h. one kept up with the traffic flow. Maintenance and servicing was a more frequent business. Oil changes at 1,000 mile intervals, gear box and transmission oil changes at 5,000 miles. Grease points, 250-500 miles, the 12/24 had thirty of them. At the period we are considering, I recollect a Tecalemit advert for greasing at 11/2d per nipple, you could have your Citroën greased for under five bob. A valve grind job or top overhaul worked out at around 50/- and was, recommended at 10,000 mile intervals.

A friend of the family also ran a 12/24 Cabriolet, but his UC 8868 was a year younger, 1928, black with cream coloured coach lined wheels, green waist band with white coach line separating the green from the black bodywork. The upholstery was

grey cloth.

The rear brakes on these cars were load sensitive, over adjustment would result in a loaded vehicle overheating the rear brakes. This would cause the leather oil retaining washers in the rear hubs to let oil pass into the brake drums. Correct adjustment of handbrake and footbrake mechanisms gave "hard on" handbrake, with three notches on the handbrake rachet quadrant, loaded or unloaded vehicle, the brake shoe being clear of the drums with the brakes off, vehicle loaded or unloaded. On our car with the Servo assisted brakes, we always considered the brakes were excellent.

Maintenance was easy and straight forward, from time to time the tappets had to be checked: .005" exhaust, .004" inlet, clearances. Ignition was from a magneto: fixed advance easily checked and set since there were clear markings on the flywheel and on the inspection window in the magneto casing wherein a red line appeared at firing point for No.1 cylinder. The accumulator (6 volts) was carried in a neat compartment on the right hand side of the car, enclosed and reached by removing a panel secured by two knurled knobs. On the left hand side a similar compartment housed the tool roll, jack, wheel brace, etc. There was a clip for a pint tin of Mobil 'A' on the engine side of the scuttle right hand side.

The bright work of this car; window frames, hub caps, radiator shell, was nickel plated and lasted very well. The paintwork was cellulose. We used to wash and leather off regularly, and occasionally polished with Karpol. By 1936 the paintwork on top of the bonnet was beginning to wear down to the red undercoat. No refinishing was ever done to the car. The upholstery stood up to the test of time very well indeed.

Now as I pass through the afternoon to the evening of life, I should like to own a 12/24 and enjoy leisurely motoring, and maintaining a car that does not demand the agility of a monkey so to do. And of course it would be a reminder of so many very happy motoring moments.

Putting the Best Wheels Foremost

After 8,000 Miles in Four Countries, D. B. Tubbs Explains How a Pre-War Preference Was Justified

THE Citroen Light Fifteen introduced itself in a powerful way just before the war, when, after many man-hours involving "The Motor's" Buyers' Guide, some midnight oil, and most of a blue pencil, we had given up the whole business of choosing a new car and Vauxhalled off to the Pyrenees in a 30/98.

It was all rather dramatic, really. An English friend and I were chatting to the owner of the local cafe when it transpired that the latter had spent 1917 flying Spad fighters on the very sector over which my pal had aviated his Sopwith Camel. So, naturally, there was a party. After a while, when the first flood of aero chat had subsided, I yanked the conversation back to ground level, knowing that the cafetier ran a car.

"The trouble with all Continental motorcars," I said, emboldened by brandy, "is that they NEVER hold the road." Well, I thought that would launch something, and it did. The Frenchman, muttering the Catalan for "Nuts!" went off and got his car, and then we went up and down the nearest Pyrenee in a Light Fifteen, with me in the back for being so provocative.

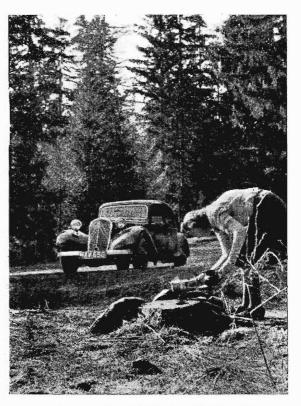
It was a pretty searing experience because our pilot just flew that car as though it had been a Spad. And it left me with such respect for the car and its front-wheel-drive transmission that our first act on returning home was to go round to C. G. Norman and Co., the London distributors of Citroens, and order a Light Fifteen.

The next thing was the war, and the matter was left in abeyance for the duration, so that what with one thing and another, it was not until St. Valentine's Day this year that I became a Citroen owner, although seven years on D.K.W. cars had left me more than ever convinced that the way to make a safe, comfortable and roomy, small closed car is to contruct a rigid chassis and drive through the forward wheels.

Warm and Steady

Our car left the factory at Slough slightly ahead of schedule, despite All Shinwell's Eve and its accompanying snows, and almost at once, with only 450 miles on the clock, we aimed it at the coast, en route for Switzerland and points east. It might have been a bit daunting on some cars, but with a built-in heater to keep us warm and some of Europe's best road-holding to deal with external ice, we set out qualm-free and secure on the frozen roads to Folkestone. There was new snow the following morning, so just for fun we asked if the Channel was frozen over. "No," said a native, seriously, "only just a bit down Sandgate way." So, of course, we crossed in perfect weather.

Looking back upon the 10 weeks that followed that sunny crossing, we realize that we could not have put the car through a much more searching 4,500 miles if



OFF THE ROAD.—The Citroen did a lot of cross-country exploring, as well as the main road stuff. This picture was taken on a woodland mountain track in the Valais canton of Switzerland.

it had been an experimental prototype, and we had had instructions to blast about the Continent and discover its weak points. Down to Geneva, we had snow or frozen roads most of the way, which, although helping to fill in some of the larger potholes left by war-time shelling and neglect, was the perfect test for roadholding, steering and springing. The car was piled high with luggage and carried in addition a 10-gallon auxiliary petrol tank in the boot. In fact, there was every possible incentive for the tail to swing round when cornering fast on the ice; yet it never did so once, and, despite some noteworthy bumps, passenger and driver remained "normally seated" throughout.

Following a fortnight in Geneva, when we helped cover the Salon, the car was aimed eastwards, down the Route Suisse, Switzerland's A1, which skirts the Lake of Geneva and leads to Lausanne, Montreux and Vevey. It is a good road, and we had no trouble in reaching the centre of Vevey 60 mins. by stop-watch after leaving the Hotel de la Paix in Geneva—49 miles exactly. After Vevey our road left the Lake, but continued to follow the River Rhône, which flows right through the Lake on the journey from its source in the Rhône glacier to the Mediterranean near Marseilles.

It is a fast and pleasant road, the one which leads out of the Canton of Vaud into the neighbouring Valais, past fortifications near Martigny and St. Maurice of which the Swiss are enormously proud, and through orchards of apricot, apple and pear, which stretch almost the length of the valley from the point where the Rhône turns east, baulked by the Chamonix massif, to run almost straight for a matter of 80 miles.

The surface is a bit sketchy in places, for the Valais is not a rich canton, but even here a cruising 60 m.p.h. was easily held, and the Citroen made an average of over 45 m.p.h. to Sierre, where we began to zig-zag up

Putting the Best Wheels Foremost-Contd.

the mountain to Crans, 4,500 ft. above sea level, which became our H.O.

We explored the neighbouring hills and valleys fairly thoroughly, first when the snow still lay around in patches, and later in the Spring, when one could not bear a hand on the paintwork for the heat. Front drive is just the job for that country, where hairpin bends are the usual thing—and the torsion-bar springing coped magnificently with untarred macadam roads, scored by the melting snow streams. So magnificently, it produced a contempt for potholes that followed us into Italy, and would have broken many a car to bits.

Having business to do in Turin, we shipped the car through the Simplon, as the Pass was not yet open, and



RELICS of war and of the snowfall beside the road near Bethune.

took the classic road down the Toce Valley to Lake Maggiore, past Arona, Baveno and Stresa, where we stopped for a drink. Here we were told to make straight for Novarra and join the autostrada which links Milan with Turin. Rather dull, we thought, so we tried an alternative route through Romagnona, in face of numerous natives who said: "Try not the Pass," or words to that effect.

But, reader, were they right! The road became Balkan in its contempt for springing, worse than anything we have struck. It was physically impossible to hold the car at anything over 30 m.p.h., so we settled for a ghastly 25, and maintained it for an hour or more, expecting the tinkle, tinkle, you get when pieces of motorcar fall off.

It is in moments like that that one is grateful for welded-steel bodies; anything else could not help but start hanging in strips, and the whole thing was cruelty to cars—especially a brand-new, post-war model. It cost us our only repair in nearly 8,000 miles; a bolt holding the tail pipe of the silencer sheared through. That's all. We replaced it in Turin, and there was not a rattle to be heard, despite all the shaking. There still isn't.

The autostrada was a happy relief, with its miles of straight, absence of cross-roads, and kilometre boards by courtesy of Fiat, so, forgetting the numerous pot-

FRONT-DRIVE PARADISE.—Loose-surfaced hairpin bends like those on this road at Stalden, near Zermatt, are sheer joy with front-wheel drive.

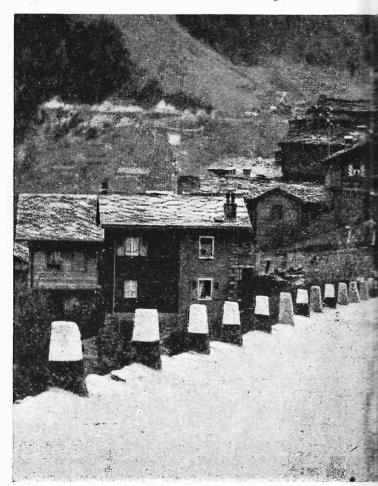
holes, we checked the speedometer and put the right foot down.

This is not a road test in the strict sense, "The Motor" interprets that term; it could not be, as I was alone in the car and had none of the special equipment needed for accurate timing. Still, over several separate kilometres the speedo. needle sat just over the 80 m.p.h. mark and the stop-watch gave 74 m.p.h.—on a bad surface, and with slightly worn tyres, so there may have been some spin. Travelling so far from home, and having nothing particular at stake, we did not push as hard as we might have done, but the figure ties in very well with a road test in May, 1939. Then the maximum given for a Light Fifteen was 72, with a mean of 70 m.p.h. for a number of two-way runs, but shortly afterwards the "performance" engine came out with five more b.h.p.

For that reason the acceleration of current models will be better than the already excellent 0-50 m.p.h. time of 18.6 secs. given by the 1939 machine. Anyhow, cold print does not do the Citroen justice, for it is not in maximum, but in average speeds that these cars excel, thanks to the incredible road-holding and to the shape of the power curve. Lots of power low down, and a straight-line acceleration graph from 10 to 60 m.p.h. in top gear.

Front-drive Features

Whilst looking at the Geneva motor show, we took the opportunity of comparing to-day's Citroen with other post-war cars. Having regard to the average speeds it puts up, it would be reasonable to expect what the French call a "pushed" engine in the hull of the Light Fifteen; yet the claimed output of 57 b.h.p. is quite modest for a 2-litre unit, and the engine is



transatlantic in longevity and freedom from "nonsense." We did not so much as clean a plug in 4,500 continental miles, and the unit was as powerful and as smooth at the end of that as though it had been tuned every day. It is not from high power that the Citroen gets its performance, but from lightness and a slim silhouette. It is still the lightest 2-litre on the market, and the lightest car per foot of wheelbase in the world —thanks to front-wheel drive.

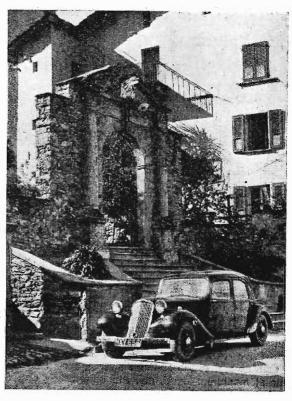
Seven years' experience have left me wondering why everybody does not employ f.w.d. It is not that there is any magic in driving the front wheels instead of the back ones—for some f.w.d cars have been shockers. I doubt whether the layman would know which end of the Citroen received the power unless he were told. It is not the technique itself, but its by-products that make f.w.d. such a marvellous bet.

Consider: in the orthodox car, with engine in front, rear-drive and wheels tucked under its tummy, the passengers are teed up in the middle and oscillate like a metronome when the chauffeur takes his corners. Of course, that picture is exaggerated, and by raising a really deep blister down the floor to house the proshaft, designers can cut the altitude a bit, but then only at the expense of floor space.

Turn now to the front-drive car: the engine and gear-box are out in front; aft of them, as low as you like, lies a dead flat door to mount seats on. So the waistline of the car can be low, the roof can come down without amputating people's hats, and everyone has a view of the road. And the driver can see both wings, which makes it pleasant for manœuvring.

There you have some of the superficial gains. Now consider the weight that has been saved; no prop-shaft, no heavy live axle. Especially no live axle, for that





ANCIENT AND "SUPERMODERNE".—Picture was taken at Visp, 15 miles or so on the Swiss side of the Simplon, after a quick trip to Italy.

means no banjo casing to jazz up and down under the floor exclaiming "Long Live Unsprung Weight!" throwing the car about the road, and getting in the way of the back seats. In short, as a Citroen-owning colleague has remarked, "You have a motorcar which really DOES have a wheel at each corner."

It must be admitted that some of the weight-saving in the Citroen comes from the method of body construction. The car is fabricated from steel pressings, so that when these have been welded together electrically (this is done at Slough as well as in France), roof, sides, floor and back panels form a rigid steel box; a box further strengthened by the welding in of the bulkhead which forms the scuttle, ties the whole car together and provides a pair of forward-jutting side members like an elephant's tusks, to act as bearers for the engine/transmission assembly and as locating points for the front suspension linkages.

Cornering with F.W.D.

Being welded together in this fashion, the body and chassis in one, the Citroen is enormously stiff as a beam. In fact, whilst watching a trial in a Cotswold lane, I once reversed up on to a bank to let other traffic past and got the car in such a position that three wheels were on terra firma, while the fourth dangled unsupported in the air. And yet even then, one could open and close any of the four doors. Rigidity never had a better tribute than that. It is this stiffness, probably, which does much to make the car so good on corners. That and the low unsprung weight made possible by front drive, for the torsion bar springs are far from giving the harsh ride usually associated with fast high-speed manœuvring.

There exists a belief that front-wheel drive cars will corner perfectly provided you keep your foot down, but that once you relax the accelerator on a bend it is R.I.P. and No Flowers, by Request. There may have been

Putting The Best Wheels Foremost—Contd.

HUNTING-SCENES were fashionable as wall-decoration in the Valais in the XVIth Century. This fine old house has come down the social scale, but its owners are still vastly proud of the frescoes. The full-length figures on the left-hand side wall, they say, depict the "Seigneur" and his Lady, who had the paintings done.

front-drive cars of which this is true; it certainly does not apply to the Citroen, for it is quite unnecessary to keep the throttle open through the curves. The car does go round more fluently if the wheels receive power all the way round the corner, but then that holds good of

rear-drive cars as well. On the occasion where a Citroen arrives too fast at a swerve, even a downhill one at maximum speed, one can quite safely clap the brakes on—with the wheels locked over. And that is as true in the wet as it is in in the dry.

In the ordinary way of driving, skids are unknown, for even on ice the car follows a tram-like path and slides very much less often than normal cars at comparable average speeds; a determined driver can have fun by taking open bends in a gentle four-wheel drift which feels very Grand Prix, but can stop this drift whenever he likes—and in 8,000 miles and more I have never "lost the front wheels" nor had the back swing round, which is a tribute not only to the chassis and springs, but to the Michelin "Pilote" tyres.

Two and a fifth turns of the wheel move the wheels from lock to lock, and the rack and pinion mechanism is dead smooth and entirely firm; it is a compliment to Citroens that the same layout has been adopted by several manufacturers for their post-war models. There is considerable castor action, and, especially when the tyres become worn, some reaction is felt through the steering wheel, but so far from being unpleasant, it avoids the "dead" feeling one sometimes meets when rack-and-pinion layout is employed on rear-drive cars.

Especially on bumpy or iced roads, we were grateful for the fact that the Citroen "understeers" keeping straight ahead unless deflected by the driver; ordinary bumps do not chuck it off its line, and side-winds are not a trouble.

The combination of understeer, front-drive, and marked castor action gives a steering that flatters the driver's ability, and makes simple what look to the passenger to be very highly polished manœuvres. Entering a bend, one has only to pull gently on the appropriate side of the steering wheel, and the car obeys orders. If the bend gets sharper, one pulls a bit more; if the road straightens out, one relaxes the grip slightly and the car resumes a straight line. It's as easy as that, for being low built and wide in the track, it is not a machine that rolls.

Two Carburetters

Although very happy with the car in standard trim, while in Paris I took advantage of an offer from René Bonnet, of D.B. racing-car fame, to try one of his two-



carburetter manifolds on my car, and have been very pleased indeed with the results. Maximum speed has been raised somewhat, although that in itself is not very important; the chief gain has been in acceleration from 30 m.p.h. to 65 m.p.h., so that point-to-point speeds of 45 m.p.h. and upwards can be budgeted for in this country, and achieved without tyre-squeal or frenzy.

Petrol consumption has not risen noticeably, and remains between 25 and 29 m.p.g., according to one's habits, and, rather oddly, the machine is now more flexible in top gear. To balance this, the twin-carburetted engine gives less torque at very low revs., and the intakes make considerably more noise, because there is no room under the bonnet for an air-silencer. It is the best possible tribute to Citroens that the chassis and brakes cope entirely successfully with what must be regarded as sports-car performance—and the Light Fifteen gives the impression that however much power one extracted from the engine, the car as a whole would never get too fast for its running-gear. Twin-carburetter outfits are not, repeat not, available in this country as yet, more's the pity.

After nearly 9,000 miles the car is running perfectly. The brakes have all their pristine "bite," all the gadgets work, nothing rattles, and the oil keeps clean and clear thanks to a Fram filter fitted when the car was new; consumption is around 500 miles to the pint, driven hard. In fact it is hard to find things to criticize. It would be nice to have an oil-gauge instead of an electrical tell-tale, and the gear-lever could be a trifle longer; and we should prefer to be without the selector-locking device which prevents one changing gear unless the clutch is fully out. The handbrake might be more powerful, too, and possess a better ratchet. But these are trifling matters.

Everywhere we halted abroad, in Switzerland, Italy, and France, the natives were quick to admire the English "garniture" of our Light Fifteen, for the wooden dash, comprehensive instruments, leather upholstery, and 12-volt Lucas electrical equipment contrast very favourably with the finish on the average continental car. Everywhere they applaud the good sense of importing Citroen engines and body pressings, and assembling them at Slough. By doing so, the Frenchman thinks, we make the best of both worlds, for ten to one he thinks, with me, that "The answer's a Citroen!"

TRACTION OWNERS CLUB-

Rally News

6th Traction Owners Club Rally 22nd, 23rd and 24th July 1983 Stratford Race Course, Stratford-upon-Avon, Warwickshire.



This year the TOC's rally takes place at the Stratford Race Course which offers exceptional facilities including excellent camping/caravan site with toilets, washing facilities including showers. We have use of a private bar whilst the race course will be for the sole use of the TOC.

The countryside around Stratford-upon-Avon seems a world apart from the urban centres of the Midlands. almost untouched by time. Much of its character is formed by the River Avon, edged with willows and flowing in a broad, peaceful valley through pastures where cattle graze. Mirrored by the water are the mighty battlements of Warwick Castle and the towers of humble village churches.

At Stratford-upon-Avon the swans gather round the arches of Clopton Bridge, and the view from the bridge of Holy Trinity Church in its riverside setting is one of the best known in Britain. Boats can be hired and the views from the water offer a different perspective of the town. Further down stream the river makes a broad loop round Welford-on-Avon and runs through Bidford-on-Avon, before crossing the border into Hereford and Worcester.

Stratford-upon-Avon is well known as the birthplace of William Shakespeare. The market town has many of the original buildings existing from Shakespeare's time, such as Hall's Croft, Harvard House, Collegiate Church, Guildhall and Chapel, and also the 15th century Clopton Bridge over the River Avon. Not far from Stratford is Ann Hathaway's Cottage, Charlecote Park and Mary Arden's House.

The activities of the rally start on the Friday at noon from the Race Course when we drive in convoy to the Four Alls, Wellford, for a pub lunch. After lunch a scenic drive will take us to the Stratford Motor Museum which was founded by Bill Meredith-Owens in 1974, this houses a

most impressive display of exotic and rare most impressive disp.i., cars entitled the 'Golden Age of Motoring'. In the evening a Noggin and Natter will take place at one of the private bars at the race course, and a presentation of the 1984 50th Anniversary of the Traction Avant celebrations will be shown.

On Saturday morning we will assemble at the Race Course for a drive through scenic country to Warwick Castle, where a tour of the Castle and grounds will take place. Lunch will be a picnic at which everyone will be expected to supply their own food and wine which will be pooled. After lunch for the first time an ingenious Regularity Run has been devised for the afternoon, through the Cotswold countryside. Back at the Race Course in the evening a barbecue party will be held near the private bar at which entertainment will be provided; there will be a raffle and

The club's traditional Concours will take place on Sunday when all the Pre-1957 vehicles will line up together. During this the TOC's Club Shop and spares will be open with an auto-jumble, so please bring those parts you wish to sell! During the afternoon the presentation of awards and prizes will take place.

There is much to see and do around Stratford-upon-Avon including a visit to the Royal Shakespeare Theatre. Take part at our excellent 6th 'Traction Owners' Club Rally, have a great holiday in the Warwickshire area - your family will certainly enjoy it and it's great fun taking part in the rally.

See you there,

_ Allan Sibley

CORRESPONDENCE

Dear Editor,

In the hope that someone can advise me before I go bankrupt I write in search of technical enlightenment. I acquired my Paris built Onze Normale with a cracked block nearly four years ago, after the previous owner drained the radiator but not the block when he laid it up one winter. Finally after having the engine rebuilt it took to the road again in time to go to Glamis. After several thousand kilometres in a fit of over confidence I decided to go to France on holiday. This despite the fact that almost as soon as I had the car on the road I noticed the defect which I believe has lead to the traction's most recent demise. This was and is that when setting off in first gear if the clutch is slipped, much as it might be if the car was heavily laden or on a hill start, there was a fearful juddering from the front. Sitting behind the steering wheel one could see the bonnet (and the rest of the front of the car) jumping up and down. On severe occasions while the car was jumping up and down, no perceptible forward motion of the car could be detected.

Almost as soon as the car got to France, what the French call a clevette, which I think is a woodruff key, in one of the driveshafts fractured possibly caused or encouraged by the juddering. The repair of this properly was finally dealt with in a small town in the south of France with the aid of a new brake drum and stub axle off the shelf.

After this the car went quite well until it developed a grinding noise at the front, which turned out to be the dynamo which finally gave way completely at Newport Pagnell and the RAC recovered us back to Edinburgh.

It had been discovered fairly early on that the juddering could be avoided by taking one's foot gently off the clutch without any acceleration until the car was moving gently forward, and then with one's foot completely off the clutch accelerating away. This method was generally employed, although it tended to distress other motorists and increased substantially the number of times one stalled the car. It was not really possible to do on hill starts as more power was required to counteract gravity.

Something audibly gave way recently many miles from home, and after a drive home that sounded as if the blacksmith had set up business in the engine compartment, subsequent dismantling disclosed that three teeth had sheared off the crownwheel.

I am today ordering the pieces needed to repair the car (with the less than total enthusiasm of my bank manager) and if the juddering has caused this to happen I very much want to eliminate it while the gear box is out and I have access to the clutch etc., as I cannot afford a new crownwheel every 5000 kilometres. Has anyone else's

car had the same fault, and if so, what cured it? I hopefully await a response.

Yours sincerely, Hugh M. Savage, 32 Yeaman Place, Edinburgh.

Dear Mr Savage,

Thank you for your letter. Clutch judder may well have caused the stripping of your crownwheel teeth – there was a case of this last year. It could also have caused the trouble with the driveshaft woodruff key, although if the taper on the stub axle and inside brake drum and the key had been grease-free, in good condition, and the hub nut had been done up correctly, clutch judder would not have caused the key break.

The driving style you describe is exactly that I had to develop when I had my first 'traction'. I bought this car after a brief test drive in which the vendor put the car on a gentle down slope for me to move off – no judder. But on the way home I learnt a lot about clutch judder.

I will try to summarise the main causes of clutch judder, but it is obviously impossible to know which affect your car without seeing it, and possibly not even then.

- 1. Clutch release arms unevenly adjusted.
- 2. Clutch release arms worn or broken.
- 3. Clutch release shaft through bellhousing: operating levers (bearing on clutch release race) unevenly worn.
- 4. Clutch springs weak or broken.
- 5. Clutch plate very uneven.
- 6. Release plate very uneven.
- 7. Flywheel worn, scored or out of true, or loose on crankshaft.
- 8. End float on crankshaft (adjusted by shims at thrust bearing at rear of engine).
- 9. Worn driveshafts.
- 10. Loose ball-joints in suspension.
- 11. Worn track rod ends (especially when starting with wheels turned).
- 12. Worn silent blocks.
- 13. Excessive backlash in crownwheel and pinion.

So far as my car was concerned, I fitted a reconditioned clutch and driveshafts and adjusted the play in the ball joints. My advice would be to set the clutch absolutely right by the manual, but also bear in mind these other points.

It is unfortunate to have trouble with the dynamo – just one of those things that can happen to any car I fear. I have had no trouble with either French or English versions, except one broken adjusting bracket which could be jury rigged at the roadside. If you have trouble finding a replacement dynamo, please let me know

and I will try to locate one. If you read German I can send you instructions on how to fit a more powerful Bosch dynamo.

Yours sincerely, Nicholas Hall.

Dear Editor,

Our club, the R.C.V.C. after his first birthday, organise a touristis rallye on the April 24th. I hope you will come with your Traction and some friends, if its possible no problems for sleeping, you're welcome.

It starts from Noyers, goes and stops at Selles's Castle then visite to the Valençay's old car show. Midday in a big cave near Chenery and a little run in the afternoon. (about 60 km in the day).

Call me few weeks before and tell us how many you're. I wish you will be with us!

François, Selles, Cher.

For further details contact: Jack Ingle, Telephone: 01 650 6089 Evenings.

Telephone. 01 030 0009 Evenings.

Apology

I regret the lack of captions for the illustrations to "Scotland the Brave" in the last issue. These were:

Top left – engine of the Kegresse. (also pictured on previous page).

Top right – John Savelli's coupé undergoing restoration

Bottom left – 1925 Cloverleaf in the main Glamis event.

Centre – Part of the TOC line up at Glamis. Bottom right – The Kegresse.



Above: John Savelli's coupé as he bought it in 1980, with Riley RM wings.

DIARY DATES

Dear Nick,

Citroën Car Club (Midlands Section) In addition to being a member of the TOC, I am involved with the Midlands Section of the Citroën Car Club. We are aiming to revitalise the CCC in 1983 and I thought that TOC members would like to see the programme of events which we have organised and which they would be very welcome indeed to attend.

The Annual Weekend Rally at Banbury always attracts a useful gathering of TOC members and we would like to see them in particular at the Historic Vehicle Parade, Dartmouth Park, West Bromwich on 8th May and the visit to Hagley Hall, Stourbridge, Worcestershire, scheduled for 3rd July.

I hope that we can count upon your support.

Yours sincerely, David Boyd.

March 25th

Four members giving illustrated talks about their cars

Salford Hall, Abbots Salford, near Evesham

April 15th

'Arctic Circle in a Dvane Talk by Malcolm Bobbitt The Bull, Meriden, Near Coventry April 29th

Tour of Nuclear Power Station Berkeley, Glos.

May 8th

Historic Vehicle Parade,

Dartmouth Park, West Bromwich

June 17th, 18th and 19th

Annual Weekend Rally at Chacombe near Banbury of C.C.C.

July 3rd

Visit to Hagley Hall, Stourbridge

August 6th

Treasure Hunt Venue T.B.A.

August 26th and 29th

Town and Country Festival Stoneleigh, Warwickshire

September 10th

Canal trip from Weedon,

Near Napton, Northants. October 14th

A.G.M., Salford Hall,

Abbots Salford, Near Evesham

November

Visit to dealer for BX launch T.B.A.

December 9th

Skittles evening The Swan, Studley, Warwickshire

All Friday Meetings commence at 8.00 p.m. Please contact any of the following Committee Members for further information: David Boyd - 052 789 2134 Jon Dewhirst - 0676 34444 Janet and George Johnson - 0452 67761 Richard Kiziak - 0327 42063 Gareth Coates - 0527 73598 Roger Goodby - 021 445 4197 Judith Kembery - 021 705 3482

All TOC members are welcome at these events - Ed.

If you have an article or photographs that you think would be of interest to fellow TOC members, or if you have any suggestions for the magazine, please drop me a line, but please note the copy dates for articles and adverts to be included in the May issue.

If you do send photographs can you please write the captions on the back, and your name and address if you wish them to be returned.

COPY DATES FOR MAY ISSUE OF FLOATING POWER

Articles and photographs no later than Friday 8th April.

Adverts no later than Friday 18th April.

WEST MIDLANDS SECTION MEETINGS All Pub meetings start at 8pm.

Organiser: Simon Saint, Snig's End,

Danes Green, Worcester.

26th May

The Four Alls, Welford-on-Avon, Near Stratford-upon-Avon,

Warwickshire.

CLUB SHOP AND SATURDAY MEETINGS Second Saturday in each month 11am to 3pm.

Arch 124, Cornwall Road, Waterloo, London SE1.

LONDON SECTION MEETINGS All Pub meetings start at 8pm.

Organiser: Kathy Hayes,

19, Winton Avenue, Bounds Green, London N11

Telephone: 01-888 6790

29th March

Goose and Firkin, Southwark Bridge Road, Southwark, SE1.

26th April

Green Man. Putney Heath, Putney, SW15.

31st May

White Hart. Cornwall Road, Waterloo, SE1.

28th June

Canonbury Tavern, Canonbury Place, Islington, N1.

26th July

Sun Inn. Church Road, Barnes Common, Barnes, SW13.

30th August

George Inn, 77 Borough High Street, Borough, SE1.

27th September

Ye Old Wrestlers, North Road, Highgate, N6.



MARCH

26th and 27th March

'Bristol Car Show and Autojumble'

Bristol Exhibition Centre

APRIL

2nd and 3rd April

'2CV Cross'

London and Southern Counties

Motor Racing Association.

Downside, Cobham.

For further details contact:-

John Brownfield,

1, Elm Road, Chelmsford, Essex.

Telephone: 0245 81534

24th April

'R.C.V.C. French Club Meeting'

Scenic drive from Noyers to Chenery, visiting Selles's Castle and the Valencay Old Car Show.

For further details contact:-

Jack Ingle, Telephone: 01 650 6089 Evenings.

see correspondence page.

15th, 16th and 17th April

'French Grand Prix'

Circuit Paul Ricard.

MAY

1st May

Citroën, Panhard and Peugeot combined meeting.

12.30pm, meeting at Salisbury Hall, St Albans, Hertfordshire. Just off A6 at Bell Roundabout,

Near London Colney.

Also a visit to the Aviation Museum, where the

Second World War Mosquito was produced.

For further details contact:-Malcolm Bobbit,

Telephone: 0895 30233

8th May

'London Spring Autojumble'

Vincent Square, Westminster, London.

21st May

'Historic Motor Show'

Mote Park, Cheshire House,

Maidstone, Kent.

For further details contact:-

M.H.V.G. 24, Mackenders Lane,

Eccles, Near Maidstone, Kent.

22nd May

'Belgian Grand Prix'

Circuit Spa.

22nd May 'Vintage Vehicle Run'

Bristol to Weymouth, total of 73 miles. Entry forms and regulations from:-

Keith McBee,

38, Kenmore Drive,

Yeovil, Somerset.

Telephone: Yeovil 74630

28th, 29th and 30th May

'Enfield Pageant of Motoring'

Enfield District Veteran Vehicle Trust.

Enfield, Middlesex.

29th May

'Nurburgring 1000kms'

29th May

'TOC London Section Meeting'

A social gathering and club display, everyone

'Enfield Pageant of Motoring'

Enfield, Middlesex.

For further details contact:-

Kathy Hayes.

29th and 30th May

'East of England Motor Show'

For further details contact:-

The Round Table,

33, Broadway,

Kettering, Northamptonshire.

3rd, 4th and 5th June

'Isle of Arran Motor Festival'

Brodick Castle.

Three events:-

1. The Clubman's Challenge,

2. The Sports Car Challenge,

3. The Vintage Rally.

For further details contact:-

Robert Smith,

29. Som Street.

Catrine, Ayrshire, Scotland.

Telephone: 0290 51464

11th June

'The Bremer Run'

Chingford Rugby Club,

Waltham Way, London E4. For further details contact:-

David Payne,

147, Hertford Road,

Enfield, Middlesex. Telephone: 01 805 2773

17th, 18th and 19th June

'Annual Citroën Car Club Rally'

Chacombe, near Banbury,

Oxfordshire.

18th, 19th and 20th June

'Le Mans 24 Hours'.

18th and 19th June

'Fête de la Voiture Ancienne'

Cepet, France.

Traction Midi-Pyrénees (Haute-Garonne).

19th June

'White Rose Rally'

Huddersfield, Skipton, Yorkshire.

For further details contact:-

D.T. Beach,

Corner Cottage, Horris Hill,

Newbury, Berkshire.

'Rotherham Vintage Vehicle Rally'

Heningthorpe Playing Fields,

Rotherham, South Yorkshire.

JULY

2nd and 3rd July

'Traction d'Occitanie'

4e Bourse d'echanges a Narbonne,

France.

For further details contact:-

M. Jean Esperon,

34210 Azillanet Par Olonzal, France.

Telephone: (68) 91 31 96 After 8pm.

10th July

'Thoroughbred and Classic Cars

National Concours'

Knebworth House, Near Stevenage,

Hertfordshire.

The TOC will have an area to show our cars, so

let's make it the biggest show of Pre-1957

Citroëns ever!

For further details contact:-

Kathy Hayes.

22nd, 23rd and 24th July 'TOC Rally'

Stratford Race Course,

Stratford-upon-Avon,

Warwickshire.

For further details contact:-

Kathy Hayes.

AUGUST

13th and 14th August

'Yeovil Festival of Transport'

For further details contact:-

Chris Dickens, Telephone: Yeovil 22319

28th August

'Dutch Grand Prix'

Circuit Zaandvoort.

26th, 27th, 28th and 29th August 'TOC Camping Weekend'

Newbury area.

For further details contact:-Kathy Hayes.

29th August

'Merton Concours'

Morden Park, Surrey.

For further details send a SAE to:-96, Hartfield Road, London SW19.

SEPTEMBER

10th and 11th September

'Beaulieu Autojumble' National Motor Museum. Beaulieu, Hampshire.

18th September

'TOC French Picnic' Venue to be announced.

French costume and dress the car!

Prize for the best presentation. Please bring your own food and drink.

OCTOBER

26th and 27th October

'Motofair' Earls Court, London.

24th and 25th September

'Donington Transport Pageant'

The Transport Trust. For further details contact:-

George Reid, Marylebone Station Office,

DECEMBER

17th December

'Christmas Dinner'

London NW1 6JR.

Venue to be announced.

CLASSIFIED

For Sale: 1950 Light Fifteen, Slough built R.H.D. reg. no. LDF 138 (Green log book). Small boot, sunroof, rolling shell, but bonnet, grille, wings and boot detached. Structurally reasonable, wooden dashboard complete and excellent. Good leather and door trims (red). Short engine – alleged reconditioned. Two transmission assemblies, cylinder head, manifolds, carburettor and pump... Spare bonnet and grille. Spare set of doors, petrol tank, and steering rack. Plus many engine transmission, suspension, body and trim spares. Offers around £450.00.

Ray Ingman, 2 Forest Glade, Epping, Essex. Telephone: Epping 72870

For Sale: Floating Power, Volume 1 to 5 complete, except Volume 4 Number 1. Also Volume 6 Number 1 and 2 available. All in mint condition. Prefer to sell as set, but might split. Offers please.

Nicholas Clark,

Home Farm, Badgworth, Somerset. Telephone: Axbridge 732758

For Sale: Big Six workshop manual £25.00. Big Six handbook £2.00. Light Fifteen handbook £2.00.

Nicholas Clark,

Home Farm, Badgworth, Somerset. Telephone: Axbridge 732758

For Sale: Two Light Fifteens, both Slough built. 1. 1949, fair condition, stored for five years. 2. 1953 very rough but with rebuilt engine, gearbox, driveshafts etc. Plus a shed full of spares. I would like to swap the lot for a Brough Superior SS100 or pre-1965 British 4 stroke trials bike, or other interesting 4 stroke British bikes.

David Chambers,

26, Mapperley Village, Ilkeston, Derbyshire. Telephone: Ilkeston 302886

For Sale: Slough 1947 Dash, plus instruments, leather seats (poor condition), bits of trim, five wheels, steering rack, log book, poor chassis, mechanicals, electricals. Sale or swap for 11BL. G. Bendall,

Telephone: Berkhamsted 4521.

For Sale: One new Michelin 165x400 Crossply tyre. £15.00., or swap for decent radial (or other Light Fifteen parts). R. Scott, 4. St Peters Drive, Little Budworth, Near Tarporley, Cheshire CW6 9BZ, Telephone: Little Budworth 510

For Sale: 6 volt halogen headlamp bulbs to fit your Paris built Traction. Available at £4.50 each.

Andy Fenwick, Heddington Coachworks, Heddington, Chippenham, Wiltshire. Telephone: 0380 850198.

For Sale: 1952 Light Fifteen R.H.D. Slough built, big boot, sound body. Was in good running order four years ago before being put into store. repainted and re-chromed eight years ago and has spent many years in East Africa, £850.00 o.n.o. Also available workshop manual, twin carbs. hubpuller, and driveshafts. C. Hamilton-Gould, Telephone: Banbury (0295) 811176

For Sale: Paris built 15CV (Big Six), Small boot model (1950), formerly owned by French Ambassador, many new parts fitted; Wings, Doors, Bumpers, Grille, and Headlamps. Resprayed, excellent interior. MOT November 1983.

Telephone: 01-928 6613

For Sale: 11BL (1953), Ivory paintwork with new interior in French striped grey cloth. Rechromed, re-built engine, clutch, brakes, and front suspension. Car assembled in Germany, and has absolutely rust-free body. Telephone: 01-928 6613

For Sale: Radiator Muffs. New muffs are being manufactured to fit Big Fifteen, Big Six and Light Fifteen. They cost £18.50 plus VAT (£21.27).

To place your order please write to Alec Bilney,

30 Mill Street, Kingston-on-Thames, Surrey, KT1 2RF.

For Sale: 1911cc 75hp DS 19 engine in sound condition. Five used 165 x 400 Michelin X tyres on early DS rims.

G.W. Cartwright,

Argoed, Trawsfynydd, Gwynedd, Wales. Telephone: 0766 87218.

For Sale: 1950 Light Fifteen - complete but not running. R.H.D. Ideal for renovation or spares £475.00 or nearest offer. For further details please contact:

Mrs E. Silkington, 14, Southlands, Broadfield Road, Knowle, Bristol 4.

Telephone: Bristol 831151

For Sale: Parts for Citroën Light Fifteen: Front cradle complete with driveshafts and hubs; dash with instruments; engine block, gearbox; seats and various other parts.

Edward Knight, Brightside,

Macy Bank,

Southwaite, Carlisle CA4 0NX.

Wanted: Tow Bar for Onze Normale. Steve Hedinger, Telephone: Windsor 52963 (Home) Iver 651700 x 260.(Work).

All your coachwork requirements. Floorpans to original specification – V section underfloor stringers; small boot rear skirts – Light and Big Fifteen available.

Collection and delivery of your car arranged. Andy Fenwick (TOC member). Please note now at new premises: Heddington Coachworks, Heddington, Chippenham, Wiltshire. Telephone: 0380 850198.

Repairs, servicing, restorations, rewiring and parts for Traction Avant from London's only specialists.

Classic Restorations, Arch 124, Cornwall Road, Waterloo, London SE1. Telephone: John or Bryn on 01-928 6613. Tool & Manual Hire Service:

Front end tools for hire from JG at Club Shop. Deposit and hire charges as follows:

Front hub and outer bearing puller £25 £2.50
Top ball breaker £10 £1.00
Bottom ball breaker £20 £2.00
Inner bearing nut spanner £5 £0.50
Hires are for nominal periods of 7 days, although earlier return will be appreciated.
Deposits are refundable only on SAFE return; any damage to tools will be deducted from deposits. You fetch and return please. Prior booking ensures availability.

Workshop Manuals Hire Service:

We have a full range of Traction Manuals for loan. Please send details of your car, together with a deposit cheque for £25 and separate postal order for £1.75 for postage. Cheque payable to the TOC, postal order payable to: Graham Brice, 46 Mayfair Avenue, Loose, Maidstone, Kent.

Please enclose a SAE for return of your deposit.

CLUB SHOP PRICE LIST

Back Nos. of Floating Power	(Subject to availability
1 copy	£2.00
2 - 9 copies	£1.50 each
10 or more	£1.25 each

Posters
Les Tractions £2.00
Traction Avant £1.25
Sepia photograph of
Dr Buckley's Light Fifteen £1.50

(Hurry - not many left.)

Tee-Shirts
'Amaze Your Friends –
Drive Traction Avant'
(white, blue, yellow or red)

£2.50 each

Metal Car Badge

blue/white-chrome finish £7.50 each

Button Badges

2" diameter TOC logo on yellow and *Floating Power* emblem on white

50p each

Enamel Brooches

1½" long by ¾" Light Fifteen (small boot pre-war).

Enamel with chrome finish dished wheels in three colours.

Black (of course), Red and Green.
Set of the three colours £2.00 each £5.00

Place your orders with Syd Griffiths, 47, Ingram House, Daling Way, London E3 5NL.

All prices exclude post and packing

SPARES SCHEME: When ordering spares please send remittance with order, using current spares list prices. Any extra will be invoiced at time of despatch of your order.

FOREIGN MEMBERS:

Please note that an International Money Order is required with overseas orders, payable in Sterling for full amount after any bank charges have been deducted.

