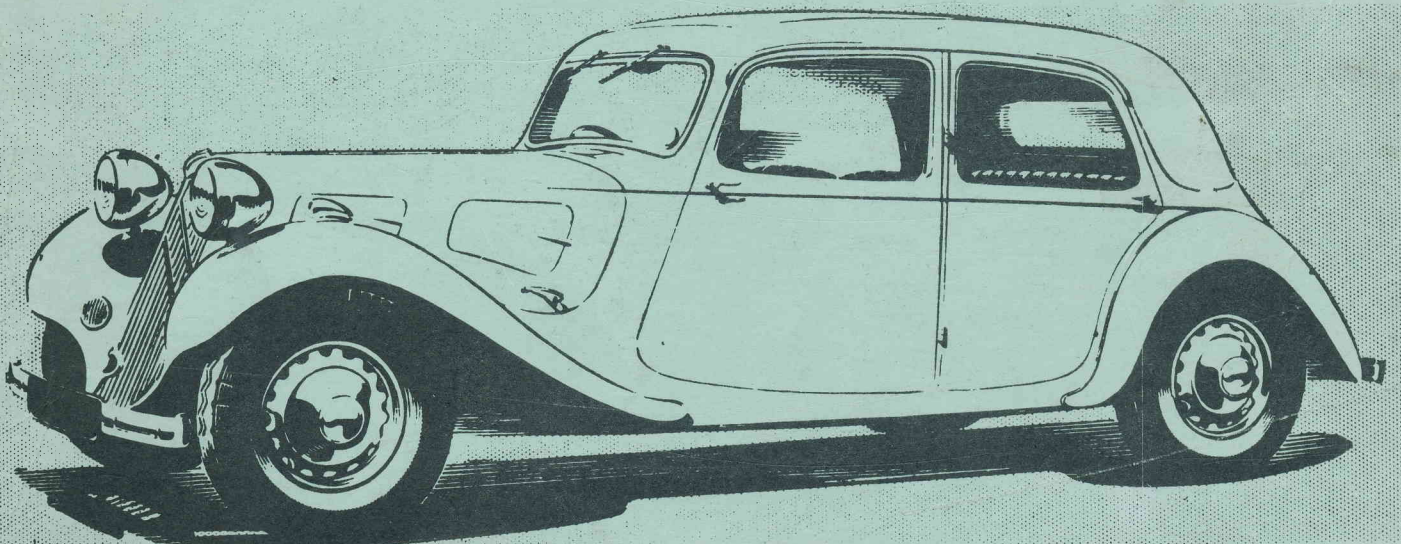
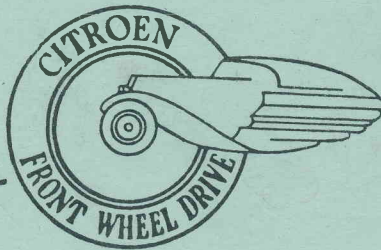


## FRONT WHEEL DRIVE

•  
INDEPENDENT FRONT  
SUSPENSION

•  
TORSION BAR  
SPRINGING

•  
DETACHABLE  
CYLINDER BARRELS



# CITROËN



# CITROEN

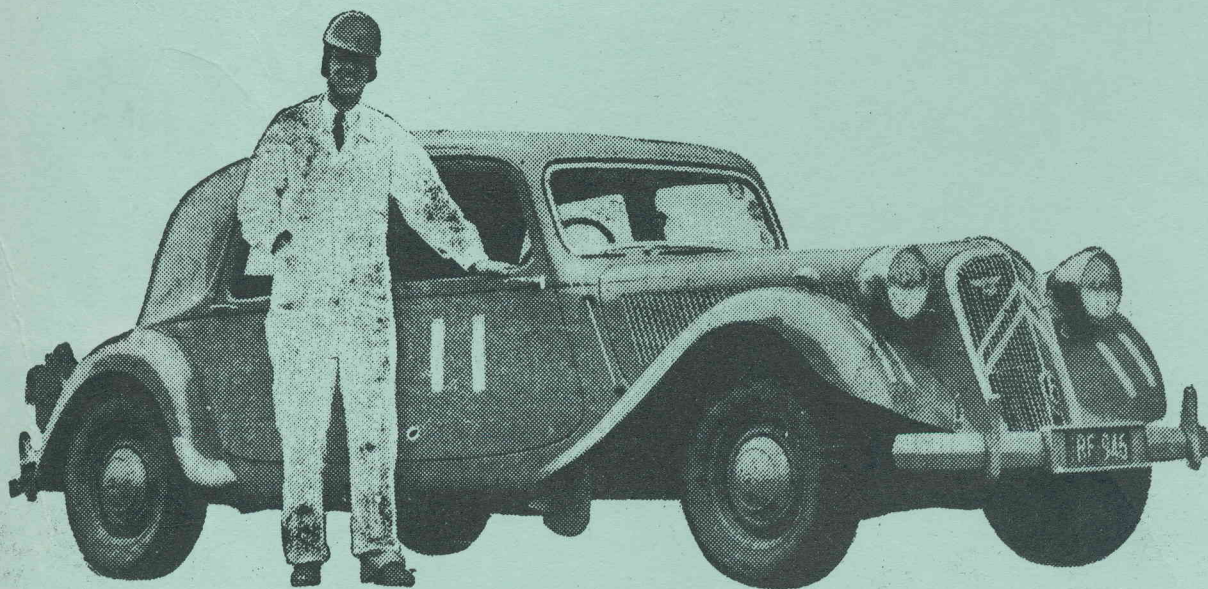
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**Outright winner all classes. Winner Open Class. Teams' Prize  
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**Outright winner equal first, Teams Prize winner Amateur 100**

For 17 years Citroen has applied Front-wheel drive, the principle which has won so many famous Indianapolis "500's" and other classic events so successfully that today Citroen's design is basically unchanged. All over the world Citroen Front-wheel Drive is constantly proving its ability to maintain high speeds under absolute and perfect control on any type of surface. Citroen holds 168 world's records unbroken today! Ring for a demonstration!



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Andrew Rankine  
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Northcote 3070  
Ph (03) 489-7635

Mark Navin  
1 Alexander St.,  
BOX HILL 3128  
Ph (03) 89-8576

Kenn Gilbert  
4 Timberglades  
Montrose 3765  
Ph (03) 728-1066

Roger Brundle  
12 Barkly Ave.,  
Armada 3143  
Ph (03) 509-0441

Kym Harding  
26 Tyrrell Ave,  
Blackburn 3130  
Ph (03) 877-4853

The Classic Register committee has for some time been concerned by its inability to reach Register members and the lack of a suitable forum for members to express their views. It is for this reason that the committee has decided to publish a Classic Register magazine.

It is intended that "Front Drive" will appear bi-monthly and is aimed at presenting information of a technical and historical nature in a quality format. For the benefit of new members, it is appropriate to restate some of the reasons for the Classic Registers foundation.

The 'Traction Avant' series had been out of production for twenty years and parts, information and know-how was becoming increasingly more expensive. The feeling was that a group could do and achieve more - hence the Classic Register. In nineteen months membership has passed fifty which is ample vindication of the original idea.

'Front Drive' is intended to inform, instruct, amuse and help owners of pre-1956 production Citroens. It can only be a success if you the members read and contribute to its pages. Articles, letters, jokes, classified section problems and solutions are welcome from all members (including country members). Vive

La  
Traction! (and La 2CV)  
Classic Register Committee

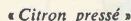
## 1977

12th October	General Meeting (Technical Night)
9th November	General Meeting (T-Shirt Screening Bring your own T-Shirt)

11th December M.G. Concours  
14th December General Meeting  
(Xmas breakup)

1978

8th February	General Meeting
26th February	Motorkhana
8th March	Annual General Meeting
24-27th March	Easter Rally - Beechworth
12th April	General Meeting





OVERHAULING FOUR CYLINDER TRACTION GEARBOXES  
\*\*\*\*\*

Helas! The traction gearbox is making weirder noises than usual and its only 160,00km since the oil was last changed. Hmm, must be time for an overhaul. If you live with a Traction, fear not, the above situation is going to happen to you, sooner or later.

A gearbox overhaul is well within the scope of the moderately skilled, but attempting it without a workshop manual is something akin to Russian roulette. Finding the gearbox section is easy- it's the fingermarked pages at which the book falls open. The following notes were prepared to help fill in the gaps in the official workshop manual.

Required tools:

With one exception, none of the special Citroen tools listed in the manual are absolutely necessary- they just make the job easier.

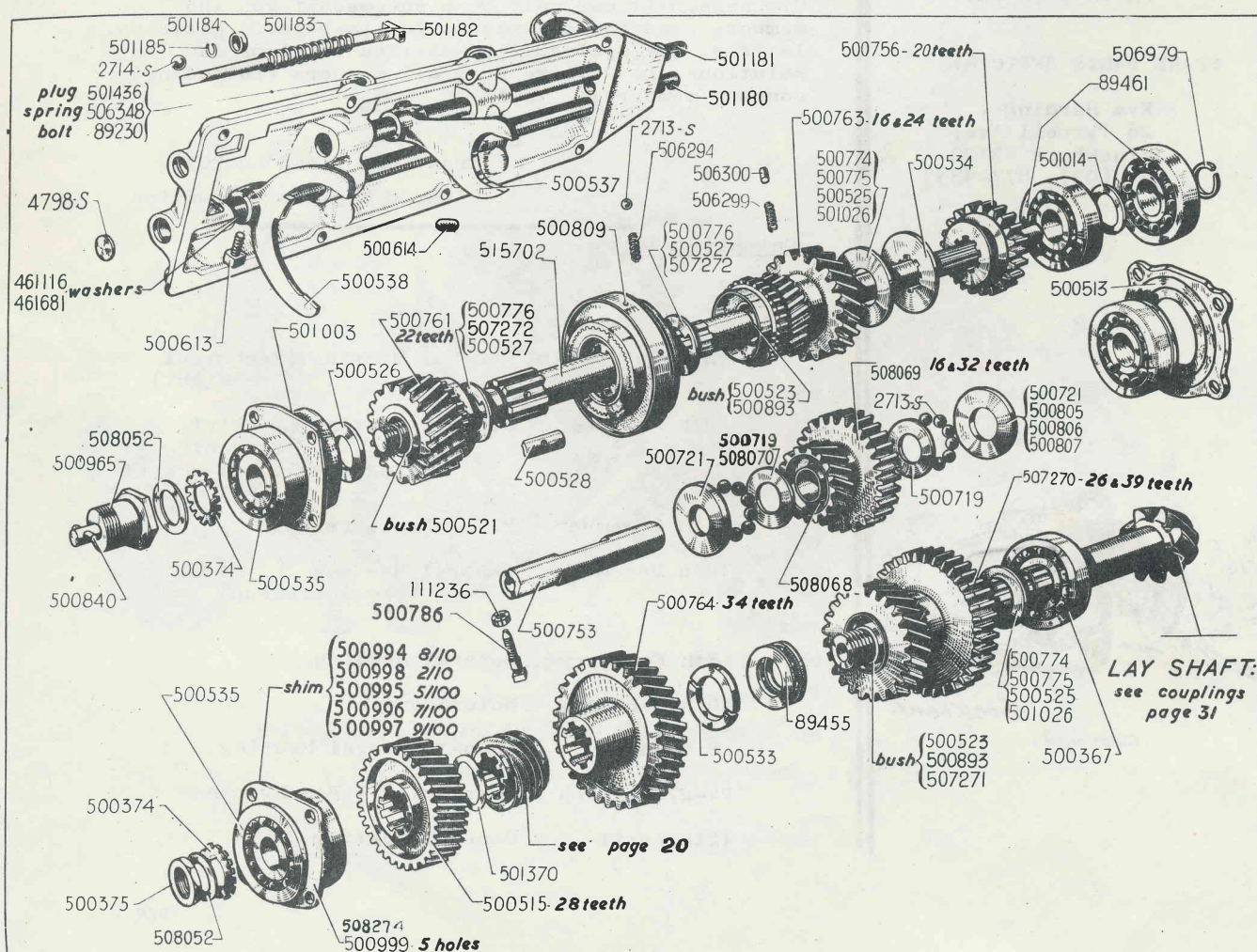
(a) Mainshaft end cap and layshaft nut(508006 and 500375):- 35mm across flats suitable metric spanners not available, use 13/16 Whitworth or 36mm ring spanner.

Note: socket spanner wont fit over mainshaft end cap, but tube spanner will.

(b) Output flanges(508354) dont require extractor- they just slide off.

(c) A normal two-legged puller can be used to remove Timken bearing cones (408451) from differential casing and crown wheel.

(d) If synchromesh hub(500809) is disassembled, then toolMR3025 is essential for re-assembly- paranoia is the inevitable result if not available.





OVERHAULING FOUR CYLINDER TRACTION GEARBOXES (continued)  
\*\*\*\*\*

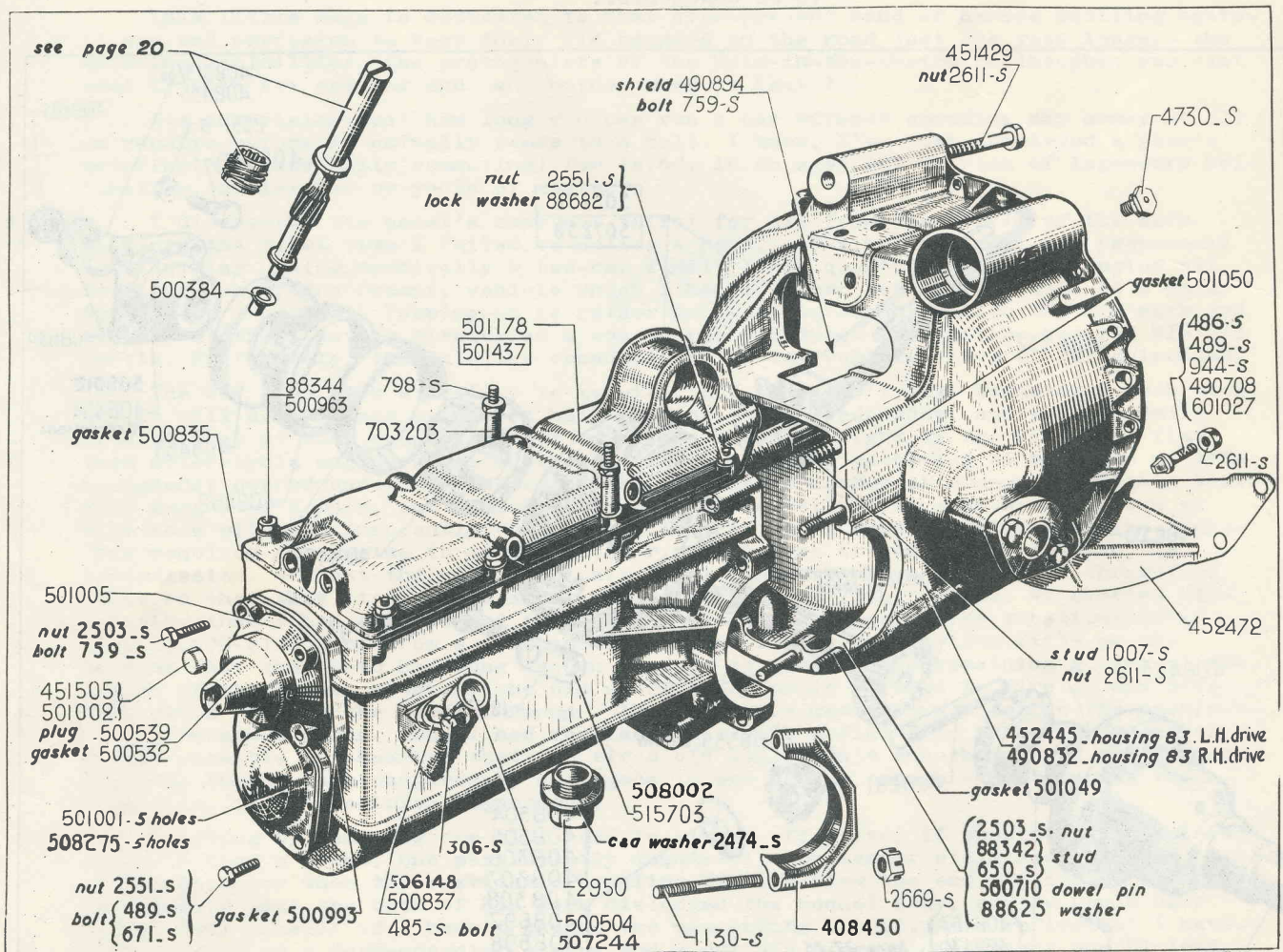
(e) Without stop tool MR3139 to allow the layshaft nut to be tightened, it will be necessary to temporarily fit the mainshaft assembly and bearings into the casing and select two gears to lock the layshaft, in order to tighten the layshaft nut.

(f) It is highly unlikely that apparatus 2044T would be available for positioning the bevel pinion- use simplified method described in the workshop manual, but check that the differential housing diameter being used as a measuring face is true and free from burrs or flats.

(g) A clock gauge(similar to apparatus 2041T) ideally should be used to set up crown wheel and pinion meshing clearance as described in the manual. It is possible however, to use a strip of medium weight brown paper run through the gears, setting the clearance so that the paper is just not cut on the way through. Fiddly and subject to error, unless extreme care is taken.

(h) Spanner 1751T is not necessary to adjust differential bearing ring nuts (408452)- back off bearing cap nuts(508471) temporarily and adjust ring nuts by hand.

(i) The various ball and roller bearings can be removed/refitted with mild steel drifters instead of the mandrels recommended. Dont use bronze drifters as these can chip, leaving bits in the bearings. Mild steel will not harm the hardened steel bearing sleeves.



OVERHAULING FOUR CYLINDER TRACTION GEARBOXES (continued)  
 \*\*\*\*\*

Disassembly:

In general the procedure in the workshop manual should be followed. However, when removing second gear idler gear(500763) from the mainshaft, care should be taken that plunger(506300) doesn't fly to the darkest regions of the garage and ensure in any case, that this plunger is removed before it is attempted to slide the gear off the shaft. If removal of the gear is attempted with the plunger in place, it will trap itself in the lubrication groove halfway along the gear bronze bushes, making removal without damage to the bushes impossible.

Dismantling of the synchromesh hub must only be done when wrapped in a cloth or plastic bag- the six balls fly everywhere otherwise.

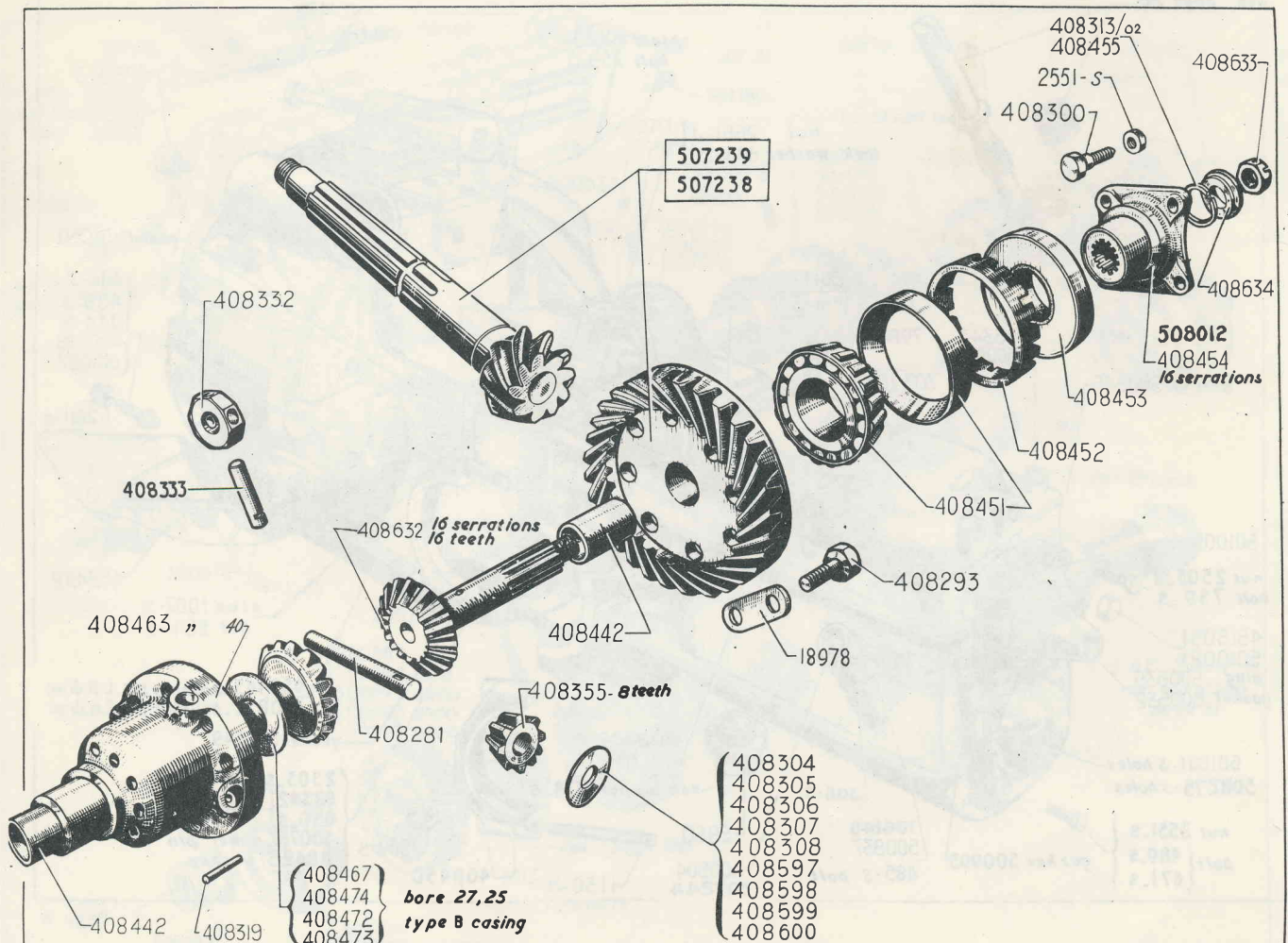
Clean all parts thoroughly(not in petrol, please!) so that they can be examined carefully for wear, cracks and other catastrophies.

Incidentally, because a good clean well lit area is required to lay out parts for examination it is not recommended to do this on the lounge room carpet- kitchen table is OK, though.

Examination:

Missing gear teeth should be obvious to even the most incompetent. After all, there must have been some reason for all that drama when outdragging the 2CV at the lights. However all sound teeth should be examined for pitting, scoring and cracks. The latter applies particularly to the second gear mainshaft pinion(500763) teeth adjacent to the synchro dog teeth and bevel pinion(508460). Cracks originate at the junction of the base(root fillet) of the tooth and the gear side face and run in a curved line to around the midpoint of the tooth tip. If cracks can be seen with the naked eye, the part should be scrapped.

TO BE CONCLUDED..





# Twin Pot Topics

Victorian Twin Pot owners with very few exceptions own 2CV of mid-fifties production as this was the period when a dealer was importing. Depending on whom you are talking to, actual numbers imported vary from between 100 to 300. Of these, there would probably only be thirty (an optimistic figure) still in registration or able to be put in registerable shape. With the numbers so low and the vehicles over twenty years old, parts still remain no major problem. I know of no 2CV owner who does not own or have access to parts and panels suitable for the A(375cc), AZ(425cc) series. There is also the added advantage that parts are still available from dealers (though not in Australia) and contacts are sufficiently developed to be ensured of supply.

With all this good fortune, it is still important to remember that what you own is a car built for traffic conditions of 20 years ago. The table (see opposite) will give an idea of maximum speeds which can be expected from a well cared for engine. The table also gives an indication of times needed to reach desired speeds. (Twin pot owners quickly learn to adjust by lengthening any travel time anticipated). 2CV brakes in tip-top condition (they should be no other way) will stop the car very quickly much to the dismay of the G----- M----- Horrible behind.

All the above leads me to say that future editions will be using this page to help 2CV owners become better 2CV owners. Any contributions, problems or solutions are welcome. Finally the following should be an object lesson on what can be done but shouldn't be. My thanks to John P. Richards' book who thanks 'Car' who thanks ..... for the article.

Speed in gears		Model A	Model AZ
max. road speed in	first gear	15 mph	15.5 mph
	second gear	30.5 mph	31.0 mph
	third gear	45.5 mph	43.5 mph
Maximum speed		48.5 mph	52.2 mph
Acceleration			
0-30 mph through gears		21 sec	14 sec
0-40 mph through gears		44 sec	30 sec
10-30 mph	third gear	23 sec	19 sec
	top gear	35 sec	32 sec

LASTDITCHMANSHIP- or how I covered 35 miles a day for 365 days without spending more than 1s.6d. on repairs.....

This little saga is dedicated to that ever-present band of heroes battling against age and corrosion to keep their old bangers on the road just one year longer- the motoring hillbillies. the protagonists of the hole-in-the-thatch philosophy: you cant mend it when its raining and why bother when it isnt ?

Its surprising just how long you can run a car without spending any money at all on repairs before it actually comes to a halt. I know. I've just completed a year's motoring(35 miles daily commuting) for 1s.6d. in an aged 2CV Citroen of legendary reliability, diminished by years of neglect.

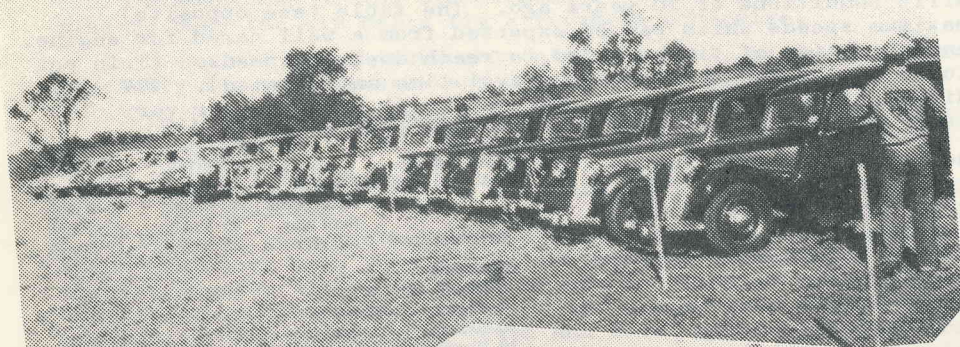
I discovered the beast's constant thirst for oil from the rattle of the main bearings the first time I failed to notice a bend, and simultaneously its phenomenal road holding. Being technically a two-car family I had quantities of used engine oil from the other, more recent, vehicle which I henceforward bottled and used as a daily topping-up treatment. Topping-up is rather an overstatement: filled the MIN mark and left it at that, having discovered a considerably reduced consumption between MIN and rattle. Fortunately, the relative consumptions of the vehicles have so far coincided.

The 2CV soon took a dislike to my wife, and it doesn't like Wednesdays much either. It will always pack up, given half a chance, on a Wednesday, and I confidently predict that it will cough its last on a Wednesday. The sight of the Citroen's flat twin motor-cycle engine silenced the inevitable helpful gathering of males as my wife resignedly peered under the corrugated bonnet one Wednesday afternoon. A certain brave soul suggested a push, and reduced himself and his fellows to exhaustion before my wife took pity and innocently volunteered that it had a centrifugal clutch and therefore required the engine to turn at 1,000r.p.m. before it would connect with the transmission. At last the car fired only to blow both plugs out of their threadless holes so that they ricocheted about inside the bonnet like bullets. We averted disaster (by then I had arrived and the helpful gathering departed) by substituting an old, 35,000-plus plug from a Mini and a hard one from a competition Elite on the grounds that they both had long enough threads to pick up the remaining scraps at the bottom of the holes. However, the old wreck steadfastly refused to fire on any plug that would stay in the head, although the gaps were meticulously set to the manufacturer's recommendation. Once I had realised that with a flat twin both fire together, it was possible to theorise that the tired old coil hadn't enough urge to put a spark into the two of them (dangerously analagous to not having enough wind to drive two windmills, to an electrical ignoramus).

Starting by removing one plug lead is always effective, if spectacular, and never fails to draw a crowd. One particulatly inquisitive bystander still had his head next to the silencer when the enevitable backfire finally blew the end off it. He reacted so strongly that the back of his neck dislodged the bonnet stay, and he would have decapitated himself if I hadn't caught the descending bonnet. As a refinement I have since rigged up a dash-operated string and a curtain ring to disconnect one HT lead.



# TRACTION RALLY



The Swan Hill lineup with Leon Sims in foreground.

Arthur Clarke receiving last minute instructions from Gerry Propsting.



Kenn Gilbert and Big 15 missing the markers (accident or design?)



# SWAN HILL '77

The winning Traction  
driven by Ray Hobbs  
showing how the job  
was done-



Chris Bennett and Big 6

strutting their stuff.

Geoff Thomas and  
Big 15 needs no  
instructions, Neil  
Tassel talking (as  
always) to a S.A.  
member.





# Correspondence

The views expressed are the correspondents own and do not necessarily reflect the views of the Classic Register.

All correspondence should be addressed to -

"Front Drive"  
1 Alexander St.,  
BOX HILL V3128

Dear Sir,

After discussing the future of the Classic Register and its relationship to the CCCV with a number of Register members at length, the following points have come to light.

The Register, now in its second year, is thriving if the membership which has topped 50, is the indicator of health. A good number of cars are under restoration, technical information is being presented and the spare parts side of the organization is now under way with Swan Hill successfully come and gone.

The great majority of Register members do not own post 1955 Citroens and do not necessarily have any interest in the later cars. It is reasonable to assume that they joined the CCCV and Register for the benefits that the Register offers. Personally, while I find the post-55 Citroens technically interesting they lack the "panaché" of the Tractions and early 2CV's, and the rarity of the vintage Citroens. Also, because of the time span between conception of Register cars and "D" series, the only links are the front drive and the name badge.

For these reasons, I feel that it may be time for Register members to seriously consider whether the Register should continue the existing relationship with the CCCV. Currently, membership of the Register effectively costs \$18, \$10 of which goes to the CCCV. I suggest that the Register aims at existing in its own right with affiliations with the CCCV if this is mutually acceptable. This, incidentally is the arrangement that the Traction Owners Club (England) has with the English CCC, and has considerable mutual benefits whilst retaining individual identities.

Food for thought !

Roger Brundle.

---

Dear Mark,

Thank you for your letter I received to-day. It was nice to hear from you.

The summer has been rather calm for Tractions. We got our annual meeting in the beginning of summer and then there was a meeting for old cars last weekend of which there were 7 Tractions. We are about 450 members but Sweden is rather big (not compared with Australia). I started to work on my 1935 7C. I bought the car in the South of France last year. I am not in a hurry with it as I am collecting spare parts for the moment.

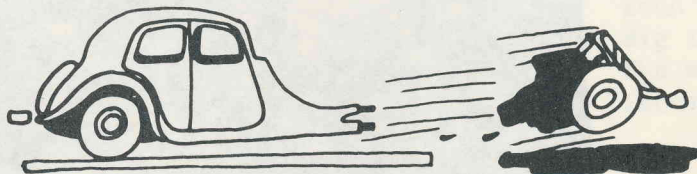
We got new spareparts for the moment.

Springs for the doorhandles Nr. 132,232 Price 3 Skr.  
Spring for the rubber for the boot Nr 802,698 Price 1 Skr.

Also for delivery is the rubber protecting the door handles, boot and under the headlights. In the beginning of next year we will start to make the most important spares for the gearbox. I will write and tell you.

It is interesting to hear from you and that you are doing well. I will write when I have more news.

Bengt Olsson  
(B-11 Klubben, Sweden).





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VINTAGE CITROEN parts from B12. too numerous to list. For further information see Mark Navin 89-8576

SPARE PARTS CATALOGUES: Reprint of Catalogue covering all four cylinder models 1934-1957, French text Price \$15.00 See Kym Harding Ph. 877 4853

T-Shirts, Dark blue with White Chevrons emblem  
SALES BROCHURES - 1938, Quality reprint  
Available from Secretary Ph 89-8576.

\*\*\*\*\*

WANTED:

URGENTLY - The Classic Register needs storage space for its Spares: If you can help contact Kym Harding Ph. 877-4853

Members to assist in production of Front Drive. Those interested contact the Secretary Ph. 89-8576

\*\*\*\*\*

Opposite: The March edition of "Thoroughbred and Classic Cars" carried this note on the English Traction Owners Club in their club section. Our thanks to "T and C.C.".



THE idea of a separate club for pre-1957 f.w.d. Citroens was first seriously mooted at a gathering of enthusiasts in deepest Sussex in December 1975: what had been intended on the part of the unsuspecting hostess as a purely social occasion turned into a spares swap, film show and "Wouldn't it be nice if...?" Basically, the interests of the group divided into three main areas - the production of a high-quality magazine, the formation of some sort of spares register or pool, and those who wished to see far more events and opportunities to meet for the owners of Citroen Traction Avant. Although the parent club offered good facilities for all Citroen owners, it seemed that the interest and enthusiasm felt for Traction in recent years justified some sort of separate organisation to concentrate on this model. It was accordingly decided at that first meeting to produce a "pilot" magazine in the New Year in order to gauge response. We received a tremendous amount of replies, and decided to go ahead with the formation of a Traction Owners Club affiliated to the Citroen Car Club.

Looking back on our first year I think that we can feel a certain amount of pride in how much we have already achieved as a club, and look forward to greater things to come! We hope to expand the services already offered, with regard particularly to spares, this being a somewhat slow process owing to the inevitably limited funds that we possess. We have an extremely able spares committee who have already arranged the purchase of two lots of spares, and we publish information that they obtain in the magazine regarding specialist manufacturers, spares available off the shelf, etc. They also help members with individual enquiries. Through our close liaison with the Dutch Traction Avant Club. (the largest in the world), who have a very extensive spares shop, we are already able to offer our members excellent spares facilities.

The magazine is produced bi-monthly, and can claim to be amongst the highest quality and most professionally produced of club publications: apart from printing material from the archives, it carries articles of historical interest, technical hints, previously unpublished photographs, and news from both our own regional sections and overseas. We are hoping to encourage members to play a more active part in general contours events, rallies, etc., something which has hitherto not been the forte of the Traction owner - and have already recruited a few enthusiasts!

During our first year we held a total of five meetings all of which were extremely successful, one of the nicest things about them being the number of new faces in evidence. The standard of restoration of those cars that have been rebuilt is encouragingly high, almost all the work being carried out by the owners themselves: there thus exists a ready pool of experience to draw on for those contemplating such a task in the future.

The Citroen Traction Avant model was one of the most revolutionary designs ever to be put into volume production, and a precursor of many design features current on modern cars such as monocoque construction and torsion bar suspension. It enjoyed an almost unequalled production run; from 1934 to 1957. Unlike the majority of cars built in the 1930s, the handling can still be termed excellent, and many a Traction owner will attest that driven with verve these cars will show a clean pair of Michelins to an average r.w.d. modern saloon on a twisty road. It is perhaps the fact that they remain an enjoyable car to drive even in modern traffic conditions, coupled with their inevitable Citroen eccentricity, that gives the model such a devoted and enthusiastic following.

Many of our members own pre-1934 Citroens, and we regularly produce articles on the older models; so that, although the majority of the cars in the club are obviously f.w.d. models, we very much welcome enquiries and information from those possessing Vintage Citroens.

We are looking forward to building on the achievements of our first year, and have an extensive diary of events planned for 1977. If you are the owner of a Traction Avant, an older Citroen, or are simply an enthusiast, the Club Secretary would be very pleased to hear from you, and to provide any further details. ●

Please write to:- Tricia Brice, 27 Forest Hill, Tovil, Maidstone, Kent.





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