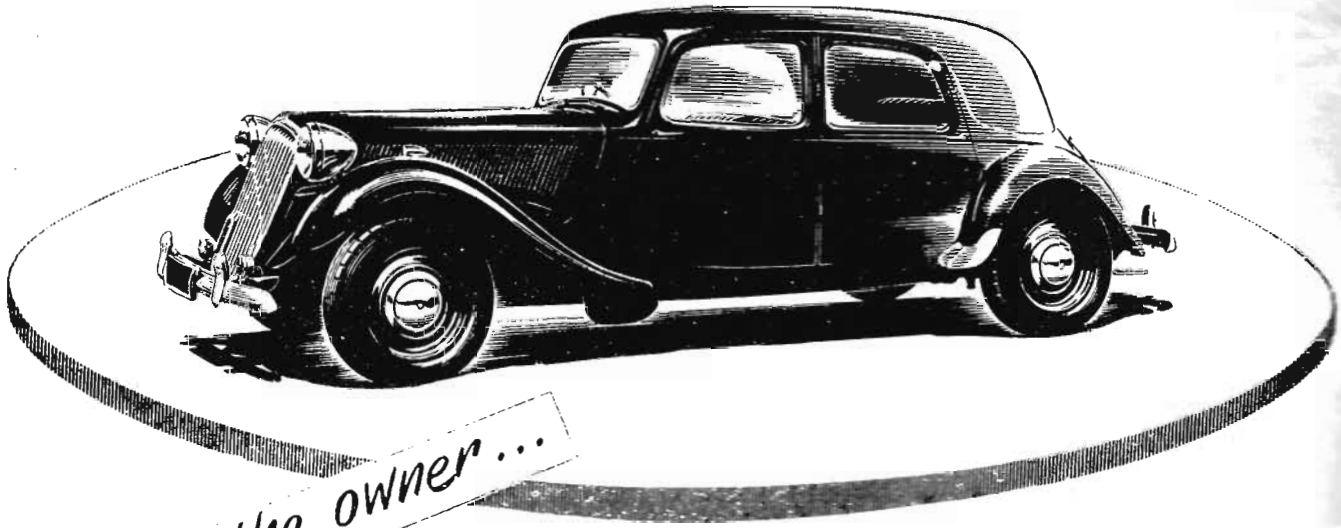
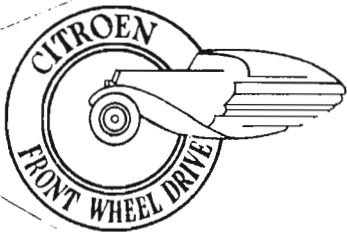




CITROEN *Viewpoints...*

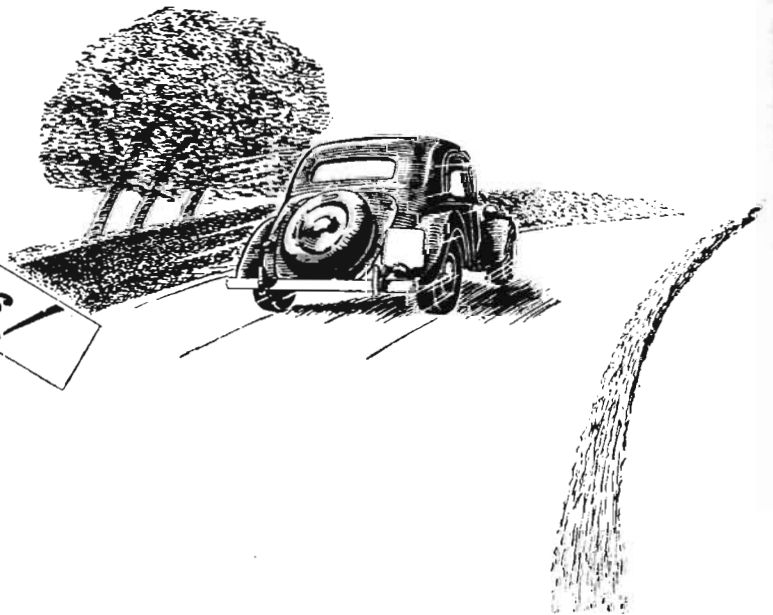


as seen by the owner...



... and by other motorists!

More often than not, the CITROEN aspect presented to other motorists is a rapidly-dwindling rear view. Yet, as every fortunate CITROEN owner knows, this sports car performance is combined with a dependable "get-you-there in comfort" ability, a reassuring feeling of safe, non-skid running, and a sense of proud possession of the most advanced and distinctive car of to-day.



The Car with
INDEPENDENT FRONT SUSPENSION
TORSION BAR SPRINGING
INTEGRAL CHASSIS AND BODY
FRONT WHEEL DRIVE

CITROEN

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"LIGHT FIFTEEN" Saloon from £799. 7. 3
"SIX CYLINDER" Saloon from £1,150. 15. 0
(Including Purchase Tax)

CITROEN CARS LTD. SLOUGH BUCKS.
Telephone: 23811. Telegrams: Citroenworks, Slough.

Floating Power

Volume One Number Four

August Nineteen Hundred and Seventy Six

The present sweltering weather (which will probably have broken by the time that you read this!) is obviously tempting many tractionnistes to promenade their cars in the country, judging by the number of 'new' cars that have been sighted recently . . . it is also the time for thinking up how you can combine all the restoration work that needs doing with getting a sun-tan! I wonder how many tractions have been plagued by over-heating problems in this exceptional weather? The Six has been behaving itself impeccably - the same cannot be said for our everyday hack Minivan, which has blown gaskets, hoses, and everything else it can think up - but we did have trouble with our previous Light Fifteen in hot weather. An aging and furred-up radiator can come to light either in the summer or when you add anti-freeze in the autumn : either way I hope that you avoid our naive solution of adding a sealing agent which shall remain nameless - it did its job good and proper, and sealed up the remaining free passages in the radiator completely!

On the subject of restoration, the Treasurer David Shepherd has just acquired an extremely covetable motor car : only the third known example of a Slough-built, r.h.d. coupe, this one being ex Criterion Garages. Of the other two examples, one is in New Zealand, and the other, of course, belongs to Fred Annells. David has got quite a job on his hands by all accounts, as the coupe is badly rusted in parts, and I think it will be some time before he appears at T.O.C events in it! A book that we have found fascinating and invaluable reading on the subject of rebuilding your car is 'The Restoration of Vintage and Thoroughbred Cars', by Wheatley and Morgan, particularly the sections on brakes, the engine, and body painting.

A small and rather sad foot-note to the article in issue No. 2, on Mr Water's Citroen 'Special' - rumour has it that the car was destroyed by fire two years after it was completed. Any other information that anyone can turn up on this car and its owner would be very gratefully received.

Have you ever paused to think why insurance rates in France are so much higher than in this country? (Apart from their crazy driving, of course!) Well here

is a salutary tale A traction was approaching a level crossing somewhere in the French countryside, on very well-worn Michelin Xs, went into an uncontrollable skid on the wet road, and crashed into the path of a freight train, derailing it; a train coming in the opposite direction was hurled off the track, and before it came to rest demolished a few buildings in its path. Needless to say, the cargo that the freight train was carrying was a very valuable one The insurance company was the MAIF, and the claim was the biggest ever involving an automobile accident. Insurance rates went up the following week! The story also says something about the care to be taken with Michelin Xs in the wet, particularly well-worn ones!

We shall be publishing an up-to-date list of members in the following issue, and it would obviously help if we could have information about what cars they possess from those members who have not already provided these details. There is rather a lack at present of older r.w.d. cars such as Rosalies, etc., and we should be very grateful to hear from anybody on the look-out for old articles, pictures, and so on containing tractions, and should you find any it would be very useful if you could send us the reference for our files.

For the more adventurous, we print details in the Stop Press of a scheme being developed by Dr. Sellers for 'sharing' the driving of a traction that he is preparing for events in the Classic Saloon Car Championship. I hope that he can get something viable going, as he has done a great deal in the past to impress those more sceptical and haughty members of the motoring fraternity with the fact that his racing traction is a thoroughly competitive car, and by the way, of course, done much for the image of the marque.

Again in the Stop Press are details of a French Picnic to be held in September, and we are hoping that other French cars of the period will be joining us. It will all be very light-hearted, with wine, French bread, and all those necessary accompaniments to such a picnic! (Not forgetting Fred Annell's passion for Camembert so ripe that it is almost crawling off the table!) See you there

THE BARE ESSENTIALS

These pictures, published for the first time and for which we are very grateful to Citroen Cars Ltd., show the components for a Light Fifteen bodyshell as they arrived in Slough for assembly. They are largely self-explanatory, and are a useful reference for the restorer as they are; the comments appended deal with this aspect rather than the actual construction of the 'Coque'.

1 The basic chassis pan of a post '53 car; without its outer skin, the main structural side member (A) is clearly visible, and should be reassuring to owners of Slough cars with sills rotten through the accumulation of water entered by the semaphore indicator hole. It will be noted that the inspection hatch cover (B) is already welded closed at its four corners (it is necessary on the French models for access to the clutch cable). Corrosion is often present at the battery box (C) and preventive measures are a good idea here during restoration. Additional torsional strength is imparted to the floorpan by the transverse box section which carries the seats (D) and good welding is essential here when replacing the floor.

2 This member (D) is more clearly shown in the foreground of this shot, in which the chassis pan has been fitted with the body sides, scuttle and dash. The fascia pressing is, of course, completely different to the French model (for which the equivalent metal forms the dash itself) since the wooden RHD board is to be superimposed on it. The hole (E) is to receive the square rear engine support rubber mentioned elsewhere in this issue.

3 The off-side body pressing, viewed from the inside; the reason for that odd crinkly line around the middle of your roof becomes apparent - the original Twelves had a fabric insert here, later replaced by a metal one, and the join (F) always shown. Can anyone enlighten us as to what to do when the captive nuts shown at (G) break free when dismantling a wing. They are, of course, totally inaccessible under normal conditions. Points (H) are prone to corrosion - sill drain holes seem a sensible idea.

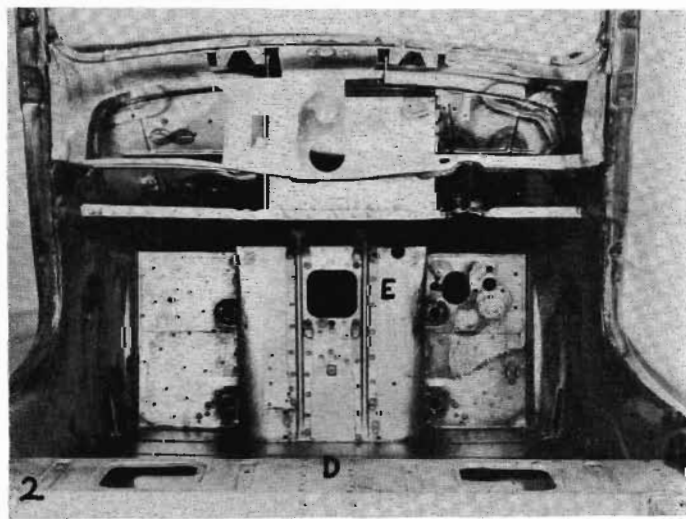
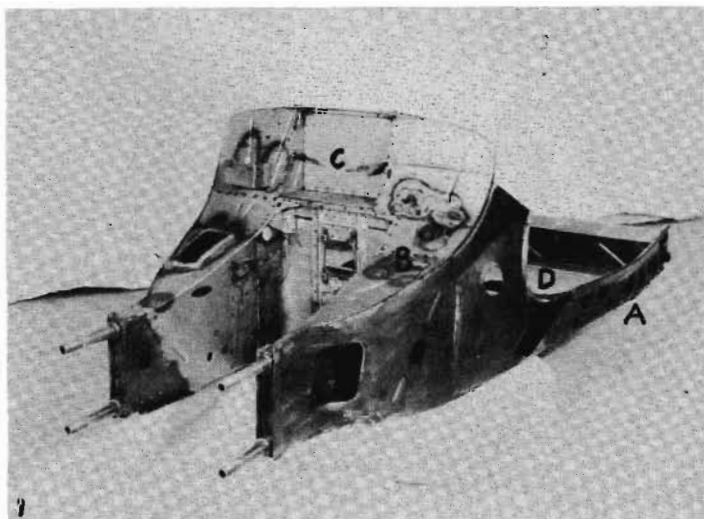
4&5 The sliding steel roof peculiar to Slough cars dismantled and assembled. When deteriorated, a major headache (if only for the water dripping on

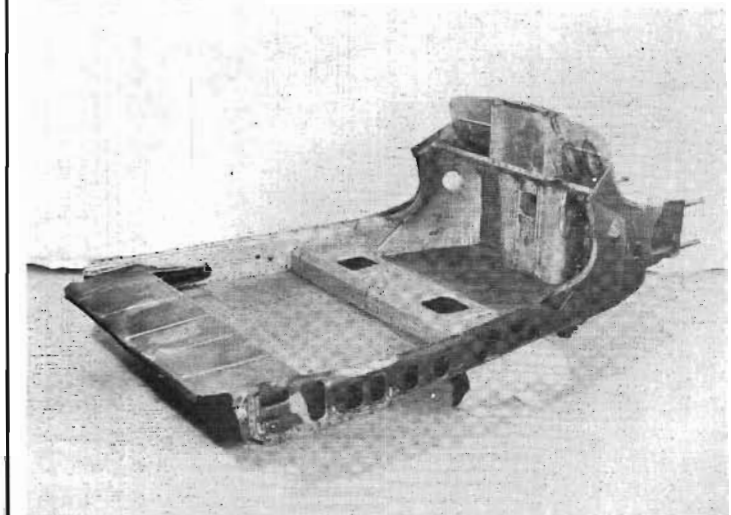
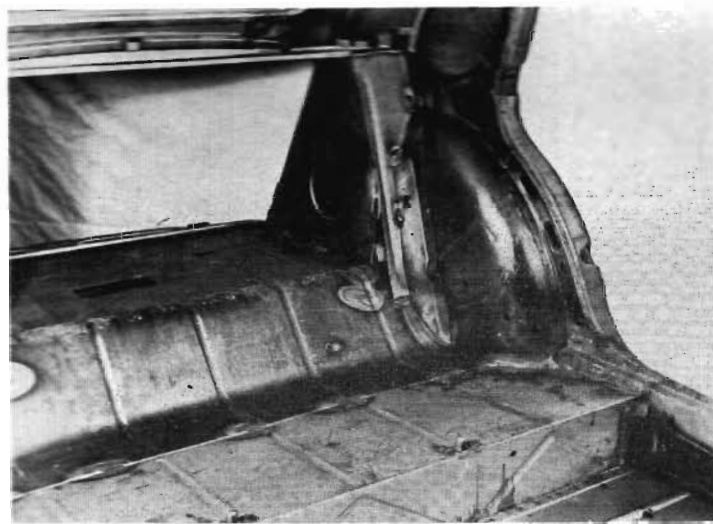
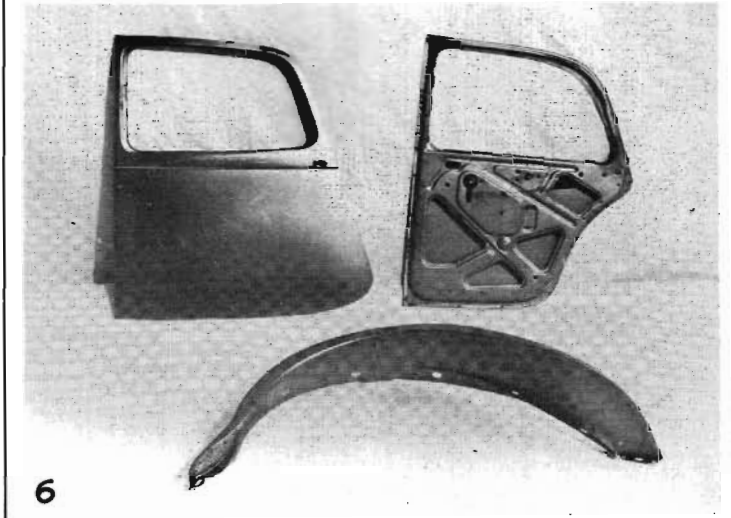
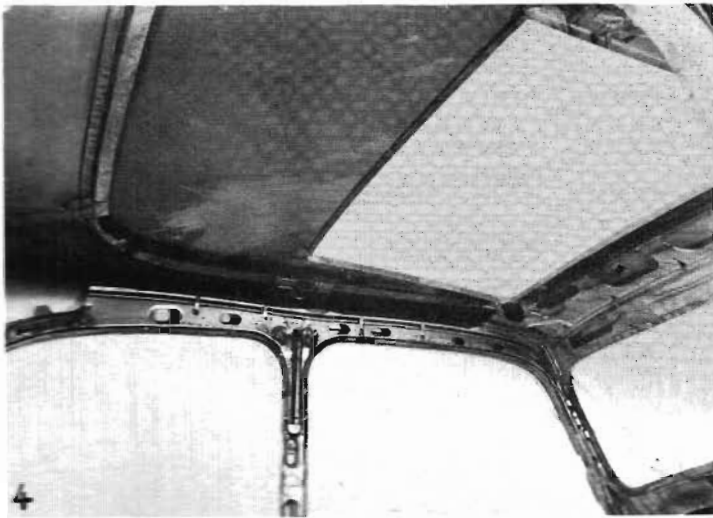
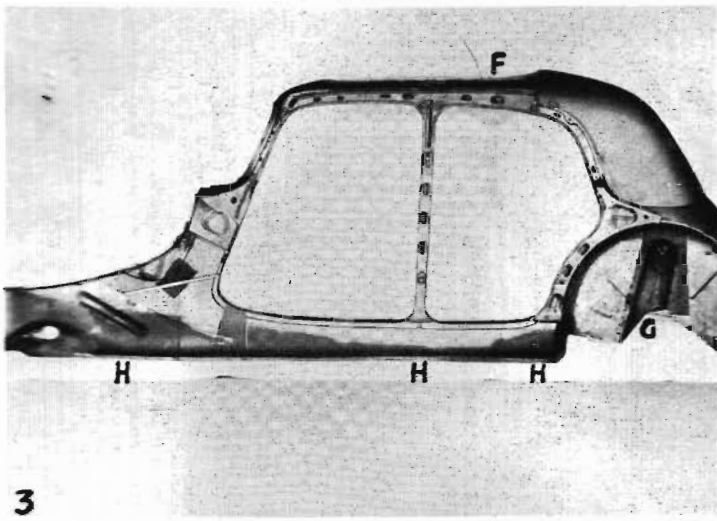
it). Incidentally, the writer once traced an infuriating anonymous rattle to hardened indicator/parking light wiring vibrating in the screen pillar.

The scuttle pressing (I) will also often be found to have suffered from neglect, the channel for the ventilator sealing rubber having corroded and consequently the entire flap having been bodged with some dubious substance or other. It is essential to keep drain holes for the windscreen (J) clear.

6 What wouldn't we give for a supply of these! The drain holes at the door bottoms, apart from not being quite at the bottom, are often blocked and the trapped water rots the doors from the inside; nearly all tractions are thus afflicted, a difficult situation to remedy efficiently. Care and very good tools should be used to unscrew the hinges, which are exceedingly difficult to realign exactly. The impossibly crude window winder is something of a Chinese puzzle to extract, and the window support runners themselves often disintegrate through the same bad sealing that rots the bottoms. Front doors are standard to all three saloon models; only the rears differ, and French ones are drilled to take the waistline aluminium strip. French doorhandles are still available off the shelf, as they are the same as those on the H van (small modification needed). Has anyone found a good way to replace the draught excluding rubber around doors? Wings; it seems good policy to keep the edging 'U'-section free from accumulations of mud at regular intervals. Fronts, of course tend to go beneath the kickplates.

Space considerations have made it impossible to publish many of the photographs of individual components, but we hope to run them in a future issue; quite apart from interest in how the machines were originally assembled, they give some guide as to how things SHOULD look!





The complete
CHASSIS
 number identification chart

French

YEAR	TYPE	CHASSIS NO.
1934	7A (12 H.P.)	0 - 7000
"	7S	20 000 - 21 500
"	7B	10,000 - 30,620
"	7C	50000 - 56700
"	11A LEGER	350000 - 351500
"	11A (BIG 15)	100 000 - 103 300
1935	7C	71400 - 80,000
"	11A L (LEGERE)	351 501 - 353400
"	11A	103301 - 107400
1936	7C	80331 - 93000
"	11A L (L.V. 15)	356001 - 360000
"	11A	107401 - 116600
1937	7C	93000 - 100000 / 200001 - 4300
"	11A L	358801 - 360000
"	11B L	360 501 - 386000
"	11A	116 601 - 118000
"	11B	118001 - 127300
1938	7C	204301 - 210500
"	11B L	386001 - 422400
"	11B	127501 - 139200
"	11C (COMMERCIALE)	290 000 - 290 990
1939	7C	210 501 - 212 000
"	7C ECO.	212001 - 218600
"	11B L	422000 - 428000
"	11B L PERFO	428001 - 450000
"	11B	139200 - 155350
" / 40	11C	291 200 - 293500
"	15-6 G	680000 - 683000
1940 - 1945	NO PRODUCTION.	
1945	11B L	456600 - 457600
1946	11B L	457601 - 469600
"	15-6 G	682479 - 682690

1947	11B L	469601 - 488200
"	11B	154770 - 156600
"	15-6 G	682691 - 682729
1948	11B L	488201 - 508800
"	11B	156601 - 163950
"	15-6 D	682801 - 685500
1949	11B L	508801 - 531500
"	11B	163951 - 177700
"	15-6 D	685501 - 691600
1950	11B L	531501 - 556200
"	11B	177701 - 195500
"	15-6 D	691601 - 701600
1951	11B L	556201 - 582200
"	11B	195501 - 212100
"	15-6 D	701601 - 713100
1952	11B L	582201 - 612000
"	11B	212101 - 236000
"	15-6 D	713101 - 721650
1953	11B L	612001 - 636900
"	11B	236001 - 270800
"	15-6 D	721651 - 723710
1954	11B L	636901 - 652550
"	11B	270801 - 403600
"	11C	293563 - 295000 300001 - 301000
"	15-6 D	723711 - 724950
"	15-6 H	726001 - 727680
1955	11B L	652551 -
"	11B + LWB	403601 -

English

YEAR	TYPE	CH. NOS. START.
1924-5	B.2.B.	98000
1925-6	B.2.B. K.4.B.	140000
1926-7	B.12.	160000
1927-8	B.14.	250000
1928-9	B.14.G	504000
1929-30	C.4.	510000
1930	C.4.111.	511000
1930-1	C.4.F	511500
1932	C.4.G	512500
1932	C.4.MFP.	512900
1930-1	C.6.	550000
1931	C.6.F.	551500
1932	C.6.G.	552400
1933	P.35'8A' (FR.)	800410
"	" " (BIG 12)	515000
"	P.34 '10A' (FR.)	250400
"	" " (ENGLISH)	520000
"	P.36 '15A' (FR.)	650400
"	" " (ENGLISH)	525000
"	C.6.K. 20 HP.	K1800
"	C.4.G.1	175400
"	C.6.G.1 20 HP.	K1871
1934	8A1 10HP.	516101
"	10A1 14HP.	522001
"	10A1 14HP.	521101
"	15A1	526101
1935	7A SUPER MODERN TWELVE	100000
"	11A 15HP	115501
"	11L 15HP	121501
1936	7A1 TWELVE	101351
"	11A1 FIFTEEN	115651
1937	7C TWELVE	102001
"	11C FIFTEEN	116001
"	11CL LT. FIFTEEN	122001
"	FN/11 MI (15H.P.)	123001-60
"	7MI FAMILY 15	123301
1938	7C2 TWELVE	102501
"	11CL2 LIGHT 15	122201
"	11C2 FIFTEEN	116101

1939	7C3 12 SALOON RDSTR	103301
"	11CL3 LT 15 + RDSTR.	122551
"	11C3 BIG 15 + FAMILY	116201
1940	7CP TWELVE STANDARD	105001
"	7CA " DE LUKE	106001
"	7CA " ROADSTER	106001
"	11CLP LT. 15 STAN.	124001
"	11CL4 " LUKE + RDSTR.	125001
"	11CA FIFTEEN + "	116501
"	15CA SIX	118001
1941-1945	NO CARS PRODUCED.	. . .
1946	LIGHT FIFTEEN	126001-127199
1947	" "	127200-129037
1948	" "	129038-131522
"	SIX-CYL.	118051-118057
1949	LIGHT FIFTEEN	131523-133374
"	" " L.H.D.	135001-135068
"	SIX-CYL.	118058-118292
1950	LIGHT FIFTEEN	133375-135000 136001-136337
"	" " L.H.D.	135069-178
"	SIX-CYL.	118293-118662
1951	LIGHT 15	136338-138908
"	" " L.H.D.	135179-135275
"	SIX-CYL.	118663-118975
"	BIG FIFTEEN	116571-116572
1952	LIGHT 15	9/520001-521224
"	" " L.H.D.	135276-135310
"	SIX-CYL.	9/527501-9/527679
"	BIG FIFTEEN	9/525001-525076
1953	LT. 15.	9/530001-531598
"	" L.H.D.	135311-135317
"	SIX-CYL.	9/537501-537594
"	BIG 15.	9/535001-535428
1954	LT. 15.	9/531599-532569
"	SIX-CYL.	9/537595-623
"	SIX "H"	9/547001-2
1954	BIG 15	9/535429-839
1955	LT. 15.	9/550001-717
"	SIX "H"	9/557501-575
"	BIG FIFTEEN	9/555001-111

Servicing the Citroën Front-Wheel Drive

ENGINE

MOUNTING

Two-point. At rear rubber block bolted to timing case and embedded in box bolted to dash from inside body. Front Silentbloc bearing on lid of gear box. No adjustment, bolts should be pulled up tight. Outriggers (adjustable) at sides have bosses fitting into tops of volute springs acting as steadies to take torque reaction.

REMOVAL

Remove bonnet, radiator shell and radiator, take out battery, disconnect all pipes and wires, take out four set-screws securing gear lever bracket to top of bell-housing (three at top, one below in front) and swing gear levers and rods back out of the way, take out four long bolts securing radiator support cross-member and disconnect front mounting bracket, take off cross-member, disconnect drive shafts at inner ends, easing bolts clear of flanges if necessary while lifting engine. Attach loop of sling round water pump body at front, and hook on to ring at rear above timing case; withdraw unit upwards.

CYLINDERS

Water jackets and crankcase cast in one, extending down to crankshaft centre line. Barrels detachable (wet liners). When head is off barrels can be eased out with screwdriver. When replacing with special packing on bottom flanges see that top of barrel stands 0.002in.-0.004in. proud of top face of block; test with straight edge and feeler.

CRANKSHAFT

Three main bearings, white-metalled bronze shells dowelled in housings; no oversize available, file caps to take up wear. Diameter of main journals 50 mm., crankpins 48 mm.

Diametral clearance, mains 0.03-0.05 mm. End float 0.10-0.25 mm. Remove shims from rear end behind thrust washer held up to shoulder on shaft by sprocket. Engine must be removed for attention to bearings.

CONNECTING RODS

Steel, big ends direct white-metalled. File caps to fit. Diametral clearance 0.03-0.05 mm., end float 0.05-0.12 mm. Small ends bronze bushed.

PISTONS

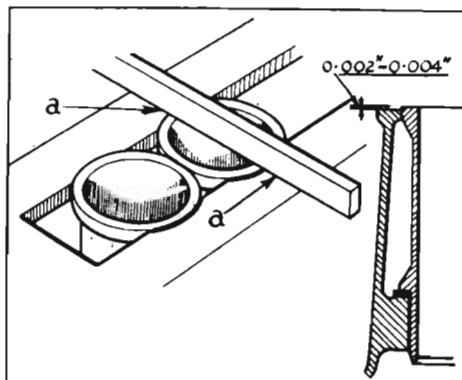
B.H.B. T-slot. Four rings, two

IMPORTANT FIGURES CITROËN FRONT WHEEL DRIVE, 1937-8

	TWELVE	LIGHT FIFTEEN & FIFTEEN
No. of cylinders	4	4
Bore & stroke, mm.	72 x 100	78 x 100
Capacity, c.c.	1,628	1,911
R.A.C. rated h.p.	12.8	15.08
B.H.P. at 3,200 r.p.m.	35	42
Compression ratio	5.9	5.9
Firing order	1 3 4 2	1 3 4 2
Valve clearance (hot):—		
inlet	0.006"	0.006"
exhaust	0.008"	0.008"
Breaker gap	0.012"-0.015"	0.012"-0.015"
Plugs, Champion J8, 14 mm., gap	0.025"	0.025"
Gear ratios:*		
Top	4.9	4.3
2nd	8.3	7.3
1st	14.8	13.1
Rev.	19.7	17.5
Crown wheel-pinion ratio	8-31	9-31
Capacities:—		
Sump, pints	8	8
Gear box (incl. diff.), pints	4½	4½
Water system, pints	14	14
Petrol tank, gals.	9	10†
Tyres	140 x 40	150 x 40‡
Tyre pressures, lb.	20	20

	TWELVE & LIGHT FIFTEEN	FIFTEEN SALOON	FIFTEEN 7-STR.
Wheelbase	9' 6½"	10' 1½"	10' 9"
Track	4' 4½"	4' 8"	4' 8"
Ground clearance	7"	7"	7"
Weight (sal.), cwt.	20½-21½	23½	24½
Battery (earth)	12-volt 57 a.h. (positive)		
	* Fifteen 7-seater has same gear ratios as Twelve.		
	† Light Fifteen petrol tank holds 9 gals.		
	‡ Fifteen 7-seater has 160 x 40 tyres, 24 lb. pressure.		

compression, one shallow grooved and one slotted oil control, all above pin. Gap 0.20-0.25 mm., clearance in grooves 0.03-0.05 mm. Piston clearance, measured on thrust face with feeler 10 mm. wide, Twelve: 0.06-0.07 mm.; Fifteen: 0.07-0.08 mm. Gudgeon pins fully floating,



Tops of cylinder barrels should stand 0.002in.-0.004in. proud of top face of block measured with straight-edge at "a" when packing is in place

secured by circlips, push fit in piston at 25° C., easy fit in small end.

No oversize pistons available. If worn should be replaced with new barrels and/or pistons. Sump need not be removed. Take off head. Pull out two adjacent barrels, when pistons can be removed and replaced. Pistons cannot be withdrawn from below.

CAMSHAFT DRIVE

Endless duplex roller chain. No adjustment. To replace, remove both sprockets (keyed and retained by nuts locked by tab washers). Centre-pop marks on teeth of sprockets when at their nearest point to each other should line up with straight edge to centres of shafts for valve timing.

CAMSHAFT

Three bearings, direct in block. End float 0.12-0.25 mm. taken by steel washer, trapped between shoulder on camshaft and sprocket boss, bolted to crankcase.

VALVES

Overhead, not interchangeable. Head diameter, Twelve: inlet 34 mm., exhaust 30.45 mm.; Fifteen: inlet 36.7 mm., exhaust 33.8 mm. Seat angle 30°. Split cone cotter fixing with spring ring below to prevent valve from dropping into cylinder.

LUBRICATION

Gear type oil pump held in crankcase by set-screw delivers oil direct to centre main bearing and to gallery running to front and rear mains with drillings to camshaft bearings.

No pressure gauge in 1937 models, but warning light with switch screwed into off side of crankcase, tapping oil gallery. Outside pipe from switch to overhead valve gear. Wick in rocker shaft.

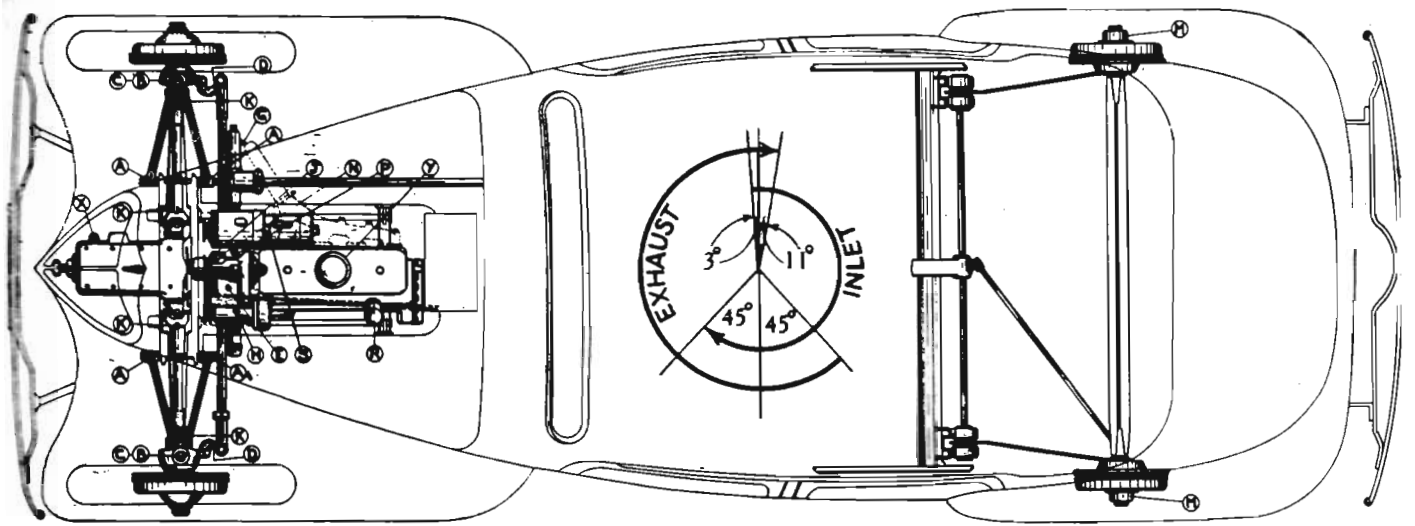
Pressure gauge fitted in 1938. Lead for valve gear from near side. No wick in camshaft. Oil pressure 20-30 lb. at 30 m.p.h. No external adjustment for relief valve. Gauze tray in sump is only filter. Crankcase breather flange-bolted to near side with baffle plate.

SUMP

Pressed steel, flange-bolted to crankcase with U-shaped cork seals in channels round end bearing caps. See that corks fit close up to face of crankcase.

When set screws have been removed from flange, sump can be lowered and tilted to clear torsion bar cross-member.

CITROËN FRONT-WHEEL DRIVE LUBRICATION



Key to Chassis Lubrication Diagram

Lubricate Every	Key	Part or Unit
Day	Y.	Engine Oil Filler
250 Miles	P.	Water Pump Bush
	E.	Clutch Thrust Race
500 Miles	N.	Fan Spindle Bearing
	J.	Selector Lever Shaft
	K.	Drive Shaft Sliding Ends
	A.	Upper Link Arm Pins and Bearings
	B.	Upper Swivel Link Ball Joints
	C.	Lower Swivel Link Ball Joints
1,000 Miles	D.	Track Rod Ball Joints
	H.	Fan Pulley Drive Shaft Bearing
	M.	Rear Hub Bearings
12,000 Miles	X.	Gear Box and Differential Filler
	G.	Steering Gear

CARBURETTOR

Solex Bi-starter horizontal. Slow-running adjustment by throttle stop screw and air screw below flange. Settings:—

	1937 (Assembly 20)		1938 (Assembly 22)	
	Twelve	Fifteen	Twelve	Fifteen
Choke	27	26	27	26
Main jet	135/2.8	135/2.8	125	130
Pilot jet	60	65	60	65
Air jet	6	5	4.5	4.5
Starter jet	135	135	120	120
Correction jet	280	280	230	260
Pilot air bleed	—	—	1.5	2

IGNITION

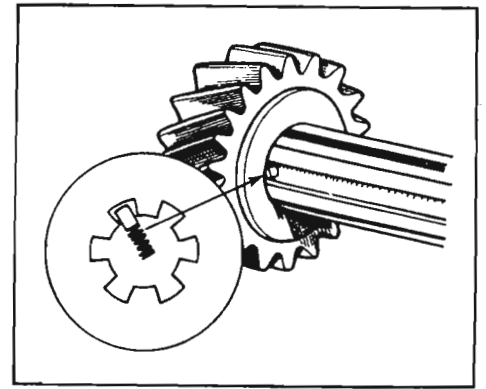
Lucas coil. Distributor has automatic centrifugal and vacuum advance (vacuum on 1937 and early 1938). Drive by offset dog from end of oil pump shaft, near side. Distributor turns in flanged bush, positioned by plate bolted to crankcase. Separate clamp plate connected to vacuum diaphragm. Points open 8° before T.D.C., indicated when hole in fly-wheel coincides with hole in bell-housing.

DYNAMO DRIVE

Dog on front end of camshaft drives short shaft, running in ball bearings in bell-housing, by loose dog. Pulley on end of shaft. Bearings located by ring nut behind pulley.

Dynamo and water pump driven by triangulated belt. Swing dynamo to adjust.

remove end covers from mainshaft and layshaft front end, engage two gears and remove nuts from front ends of both shafts, remove circlips locating



Spring plunger locking second gear pinion retaining washer

TRANSMISSION

CLUTCH

Single dry plate flexible rubber centre; ball thrust race. To adjust, let back operating arm to off position. Adjust three toggle arms equally to 1 mm. clearance to thrust race, take up operating arm to give 0.006in. toggle clearance, let back operating arm for running clearance of 1 mm.

GEAR BOX AND DIFFERENTIAL

To remove from car, put block under front of engine, remove radiator block and shell and cross-member over gear box; disconnect drive and gear levers from bell-housing; put pan underneath to catch oil, disconnect gear box from bell-housing and pull off, complete with differential assembly.

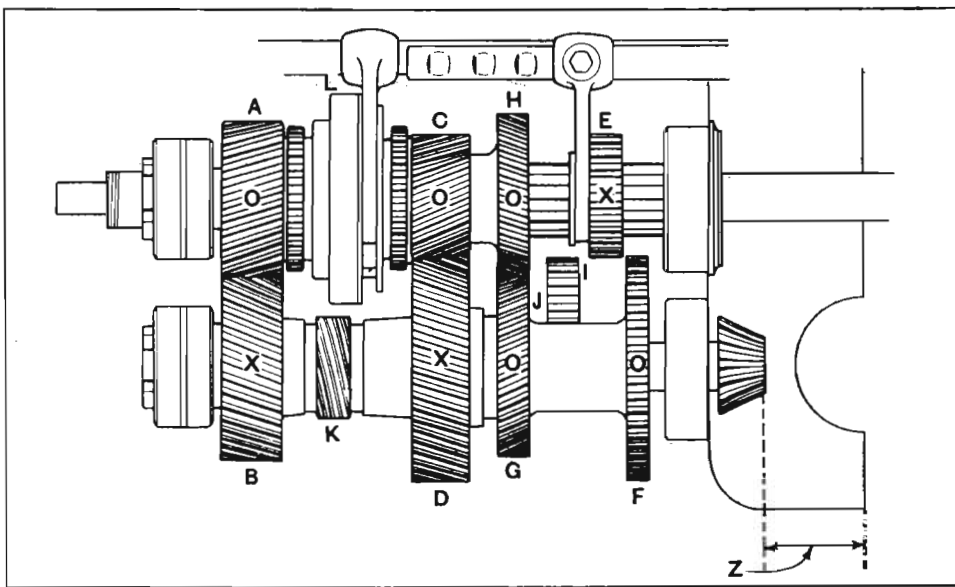
To dismantle box, remove differential assembly by detaching bearing caps; remove lid with selector forks;

rear bearings to mainshaft and tap bearings out from inside. Slide out first speed gear. Drift out front mainshaft bearing complete with housing from inside. Remove washer, top speed gear and key washer, taking care that synchro gear key for positioning keyed washers is not lost. Remove the mainshaft with second speed gear and synchro gear attached by moving backward and lifting front end out through top of gear box.

Synchromesh mechanism slides off complete, balls and springs being sealed by metal band. Second gear pinion is retained by splined washer locked against splines by spring plunger. Depress plunger, turn washer 1/8 turn and slide off splines.

Remove outwards front layshaft ball race housing complete with ball race, move top and second speed gears forward to remove half washers in recess behind second speed gear. Drift out bevel pinion and shaft from front through gears.

Tap out reverse intermediate pinion spindle forwards, having removed lock-



Layout of gear box :—

- Gears marked O, Free on shaft
- " " X, Splined on shaft
- L - Top and 2nd synchro sleeve
- J (behind G) and I, reverse pinions
- K - Speedometer drive

- Z - distance from end of bevel pinion to crown wheel axis, engraved on end of bevel
- Drive in top taken through A-B
- " " 2nd " " C-D
- " " 1st " " E-F-G-H-C-D
- " " reverse " " E-I-J-G-H-C-D

ing set-screw on offside of box. Lift out pinion and thrust washers. Ends of pinion bush spun over thrust balls to retain them.

To understand principle of box it should be realised that, as all gears are indirect drive, to obtain necessary reduction on first and reverse gears three trains are used in series. Sketch explains order of drive in each gear.

To adjust mesh of crown wheel and pinion, note number engraved on end of pinion shaft, say, 56.65. This is distance in mm. of end of pinion from rear face of gear box (axis of crown wheel, see sketch). Adjust by shims behind front bearing housing. Crown wheel carried in Timken bearings, adjust sideways by ring nuts behind oil seals. Bearings should have slight play and back lash, measured tangentially on crown wheel teeth, should be 0.2 mm.

Front mainshaft and front layshaft bearings are double-row ball, rear layshaft roller. Rear mainshaft two single-row ball races.

DRIVE SHAFTS

Hardy Spicer needle roller halfshafts with single joints at inner ends, double joints at outer. If parted at splines see that they are reassembled with transverse axes of yoke ends parallel.

SWIVEL HOUSING

Stub axle runs on two non-adjustable ball races in swivel housing which is carried on outer ends of link arms in balls and cups. Balls keyed on tapered ends and retained by nuts.

To adjust top ball joint, remove ring nut retaining ball cups and take out shims between cups until there is slight friction when nut is tightened. To adjust bottom ball, remove cover plate and take out shims between cups, adding shims to correspond behind cover plate on reassembly.

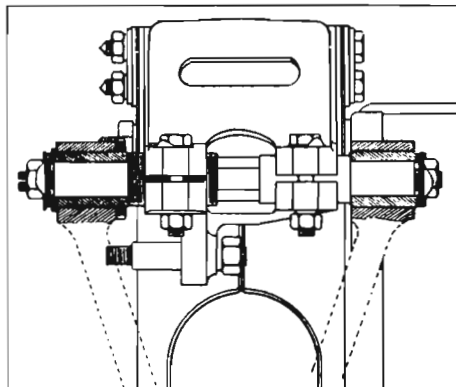
To remove halfshaft, draw off hub (tapered and keyed on stub axle), remove ball bearing ring nut, remove brake back plate, disconnect track rod arms, top and bottom link arms from swivel housing by drawing off balls, unscrew felt washer retaining cap from inner end of halfshaft and draw shaft at splines.

When disconnecting link arms use extractor for balls, taking care to fold back leather seals before applying claws of extractor to link arm ends.

CHASSIS

FRONT SUSPENSION

Torsion bars connected to lower link arms by splined sleeve in rubber mounting bush, bush housings flange-bolted to front cross-member. Short splined shafts in between bearings



Top triangle bearing assembly, bushes in section

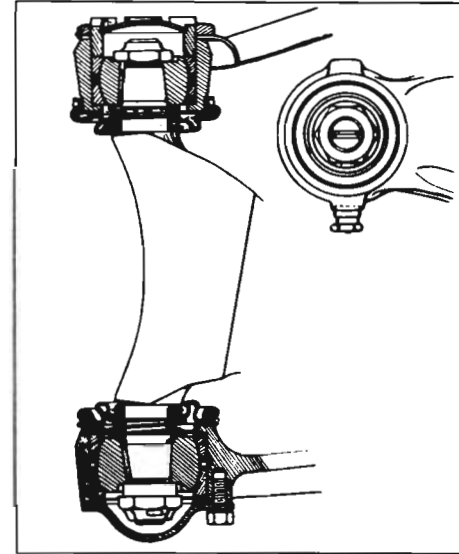
carry lower links, torsion bars being retained by long bolts screwed into their ends. Rocker arms on rear ends of torsion bars abut on adjustable stops.

Correct heights of various models, measured from centre of lower link arm hinge pin in front and from

bottom of tubular cross-member at rear are :—

Model	Front	Rear
Twelve	11 1/4"	11 1/8"
Light Fifteen	11 1/4"	12"
Fifteen 5-seater	11 1/4"	11 1/4"
Fifteen 7-seater	11 1/4"	13"

Top triangular link arm bushed at inner end on pin screwed into bracket on frame. Side play of triangle on pin must not exceed 0.002in. and

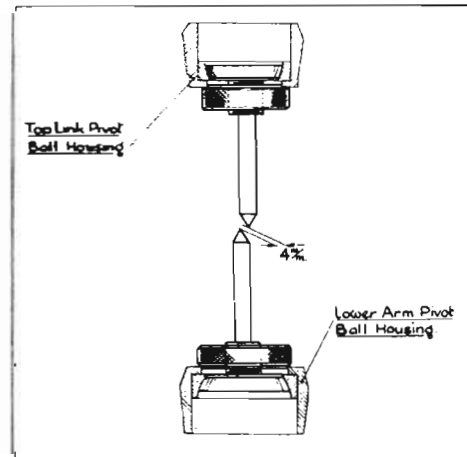


Section through swivel housing

triangle should be able to fall under its own weight.

To take up side play, remove shims from behind washers at each end, of smaller diameter than inside of bushes.

To adjust caster angle, pins should be turned by means of hexagon centres, after clamping bolts have been slackened off. Dismantling pins upsets caster angle, which must be adjusted on reassembly. For 1935-36 types, pointers may be mounted centrally

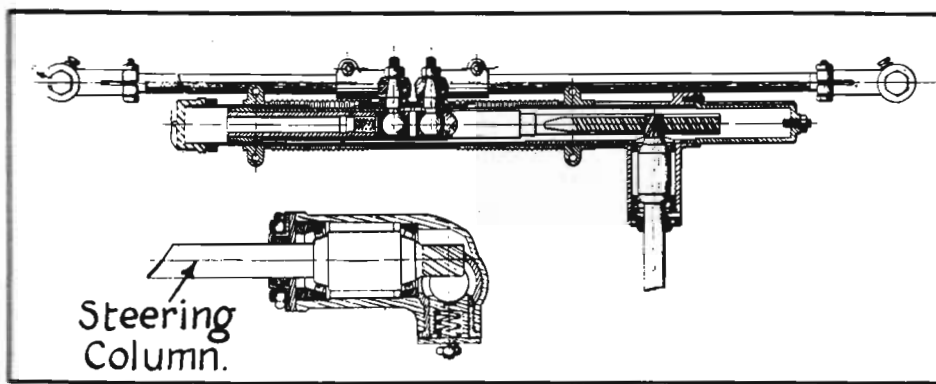


Special jig for caster angle adjustment

and vertically in ball sockets on outer ends of link arms. For 1937 use special jig. Adjust so that upper pointer is 4 mm. behind lower pointer, giving correct caster of 1 1/2°-2°. Camber should be 1 1/2° and—owing to front drive—wheels should toe out 1/8 in.-3/8 in.

STEERING

Rack and pinion. Transverse rack and divided track rod, inner ends of



Details of rack and pinion steering assembly, showing pinion formed on column and track rod ball joints. Below is section showing rack guide

track rod having ball joints socketed in extension of rack. Pinion formed on end of steering column, which is carried in opposed taper rollers. Play in rollers may be taken up with shims under top cover of bearing housing. Allow free movement without play.

Spring-loaded rack guide flange-bolted to housing immediately under pinion. Adjust toe-out by turning track rod tubes, clamped at each end, each an equal amount.

REAR AXLE

Dead axle carries hubs on Timken taper roller bearings. Located by torque arms connected at front ends by links to torsion bars. Adjust torsion bars on links at outer ends (see table under "Front Suspension").

BRAKES

Lockheed hydraulic. Hand brake pistol grip handle works lever actuating rear brakes by cable. Adjust on front end of cable.

SHOCK ABSORBERS

Spicer telescopic. Remove from car for topping up with engine oil. Correct quantity of fluid is important, so old oil should be emptied out and 140 c.c. (5 fl. oz.) poured into front shock absorbers, 160 c.c. (5.7 fl. oz.) into rear ones. To fill, extend fully and clamp end in vice so that filler is about vertical. After filling, compress and extend about twelve times to work fluid through valves.

ELECTRICAL SERVICING

GENERAL

Lucas equipment includes 12-volt battery with earthed positive terminal mounted in bulkhead compartment, 57 a.h. capacity, wired direct to yoke-mounted starter switch with branch lead to ammeter. C.V.C. dynamo, belt driven, situated offside of engine, connected to R.F.50 control box containing cut-out, regulator, auxiliary fuses and terminals of all lighting and charging circuits. Standard lighting equipment fed direct by harness cable from P.L.C. type panel switch.

CHARGING CIRCUITS

Two leads from dynamo connected to control box terminals D and F. Both cut-out and regulator units formed on common frame with "L" shaped iron armatures mounted on spring hinges and tensioned by screw-adjusted springs secured by lock-nuts. These are located at back of frame and are means of adjusting cut-in voltage and controlled output.

Cut-out coil carries shunt and series windings, the latter being in series with divided series compensator winding on regulator coil, which also carries regulator shunt winding.

If charging fails, disconnect leads from terminals A and A₁, bridge together and insulate temporarily. Connect C.V.C. voltmeter neg. to D terminal and pos. to E terminal to read open circuit controlled volts and for readjusting. Before altering adjustment inspect dynamo brushes, commutator, connections and belt drive. If voltage remains steady at 15.75-16.3 volts, check cut-out contacts, series connections, and battery line; apply loading tests. After prolonged use, regulator contacts depreciate. Replace unit or fit service control box.

LIGHTING CIRCUITS

Feed to lighting switch is taken from control box terminal A₁ in series with compensator winding. Note when disturbing wiring that this connection must go to terminal A of panel switch and not to centre terminal of key switch, although this is internally bridged to terminal A. Bridging is not intended for full lighting load.

Side and rear lamps are all wired from terminal T (colour coding—red). Rubber-sheathed connectors are fitted in wiring under wings feeding head and side on each side. Off side head is fed from "lamp" terminal of dipper unit in near side head.

Note that a separate lead is taken from "H" terminal of panel switch to dipper switch, in addition to harness cable to "+" terminal of dip unit and near side lamp holder. "Dip" terminal of unit is fed through wire from switch and dipper solenoid circuit is earthed direct to lamp body.

Dipper fuse 4.5 amps. If this fails repeatedly, look for sticky action, lack of lubrication, inefficient contact of switch blades, or distortion of reflector frame. Panel lights and interior light connected direct to ammeter.

AUXILIARY CIRCUITS

Twin horns and stop-lamp switch connected through harness to control box terminals A₂. Twin lead to screenwiper from A₂ and E. These lines are fed direct via auxiliary fuse, 25 amps. Terminal A₃ is input connection from ignition switch, connected by 25 amp. fuse to terminal A₄, feeding trafficators and petrol gauge.

Any additional circuits required to be key controlled should be connected between A₄ and E. For constant availability, connect to A₂ and E.

Single-wire type trafficators earthed through bodywork, wired through junction block. Four-terminal junction box carries connections of horns, stop lamp, dipper switch connection and trafficator switch connection.

IGNITION

Distributor fitted with flyweight auto-advance and vacuum control. Use light oil to lubricate flyweights, toggles and pivots and check that cam sleeve is free on spindle. Correct replacement springs essential. Set contacts to open 0.012-0.015 in. on lobe of cam. Plug gaps 0.025 in. Set timing 8° before T.D.C. fully retarded, using locating holes in fly-wheel and bell-housing. Distributor rotation clockwise at rotor end.

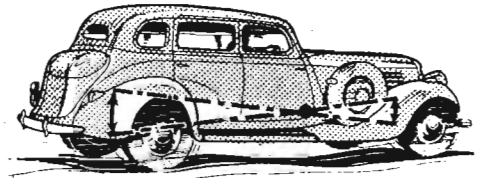
PETROL GAUGE

Test continuity of circuits by connecting voltmeter in series with tank line. Constant "full" reading indicates break in wiring to tank unit.

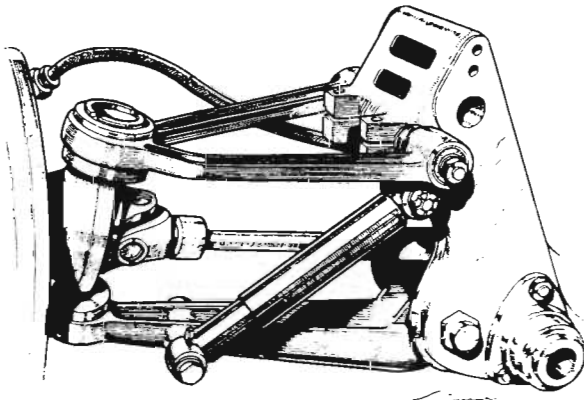
RECOMMENDED SERVICE TOOLS

	£	s.	d.
Hub extractor for Twelve ..	19	6	
Hub extractor for Fifteen ..	1	2	6
Extractor for outer swivel ballrace	1	5	0
Extractor for upper swivel ball joints	17	6	
Gauge for checking steering locks	1	7	6
Gauge for checking caster angle	1	15	0
Spanner for ring nut adjusting diff. casing roller bearings	1	0	0
Spanner for screw fixing arm of rear axle	17	6	
C Spanner for timing wheel securing nuts	8	6	
Jig for compressing clutch assembly (Twelve)	7	6	
Jig for compressing clutch assembly (Fifteen)	7	6	

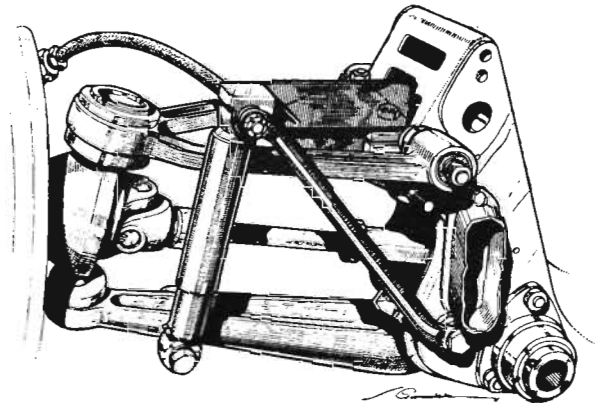
SPEED



A fabricated heavy gauge steel bracket to improve the geometrical efficiency of the shock absorbers (front) by relocating the upper mounting in such a way that the dampers travel is the same as that of the suspension itself (being more or less parallel); thus spreading the load over a longer movement (three times longer, according to the blurb) thereby reducing pitch and improving ride and stability.



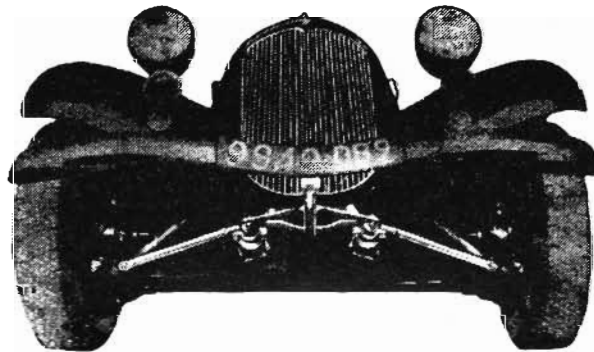
Avant transformation



Après transformation

LE BLOC DE TRIANGULATION L. B. G.

IMPROVED TYRE WEAR



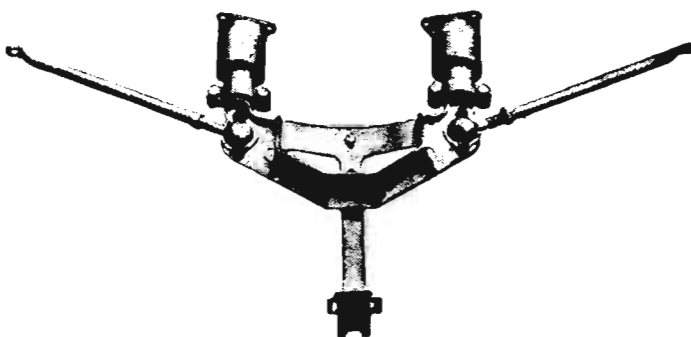
GREATER SAFETY

'For the best in ride and roadholding, the makers had no hesitation in adopting I.F.S; a major innovation which is perfected by using the 'Bloc de Triangulation'

'IT ALLEVIATES the stresses of acceleration and braking on the lower suspension arms while maintaining their independance of movement'

'IT STOPS tyre squeal, improves tyre life'

'IT PROTECTS the gearbox with a steel buffer'



This seems a fairly rational modification, as does the shock absorber mounting; it would be extremely interesting to run a comparison test between a car thus equipped and a standard model. This one has the undeniable advantage of providing a secure location for the starting handle - obviating the 'wobbly bumper syndrome'! (and a convenient towing eye is provided). And it is true that while the top wishbone is very broad-based, the lower suspension arm has to cope with longitudinal stresses (magnified by the leverage exerted by its 18 inches of length) with no form of bracing whatsoever - the load is absorbed by the two silent blocs. This addition would relieve those, and the wishbone bushes, theoretically eliminating the dreaded judder attributable to wear in these areas. And anything that helps that most mysterious of Traction ailments can't be all bad. Front-end judder on take-off has been traced variously to wishbone bushes, incorrect setting of engine suspension springs, deterioration of the rear engine support rubber, the gearbox mounting rubber, uneven clutch plate, crankshaft end-float, etc., even in my own meagre experience. Readers comments are cordially invited.

VINTAGE PARIS

Today the manufacture of the complex Citroën with its hydraulic services has reverted to France, although at one time it was largely assembled, then manufactured, at Slough, where the British Company is still based.

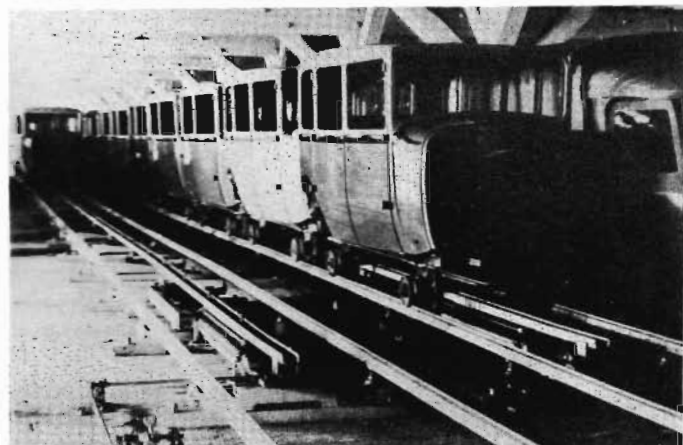
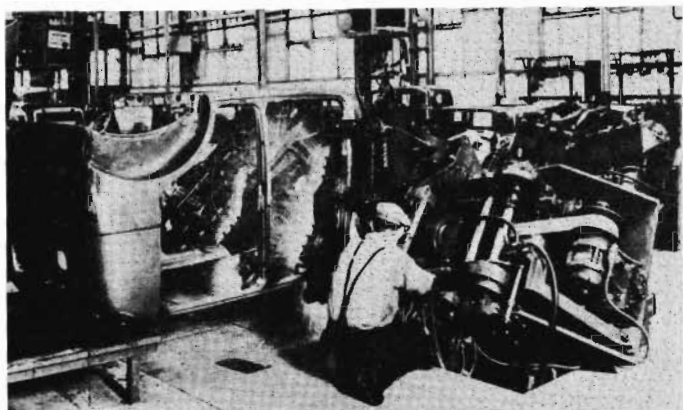
In 1930 Citroën was making popular cars in considerable numbers, its eye on its two competitors, Renault and Peugeot. Its new 4- and 6-cylinder models were proclaimed in flashing green, gold and red lights on the Eiffel Tower itself, from which the famous double-chevron trademark went out in vivid flashes.



In those times the company was known as La Société Anonyme André Citroën. Its headquarters were at 143, Quai de Javel, Paris, its capital amounted to 400-million francs, it employed some 25,000 people and had a capacity for producing 1,000 vehicles a day, if Citroën lorries and creeper-track machines were counted with the cars.

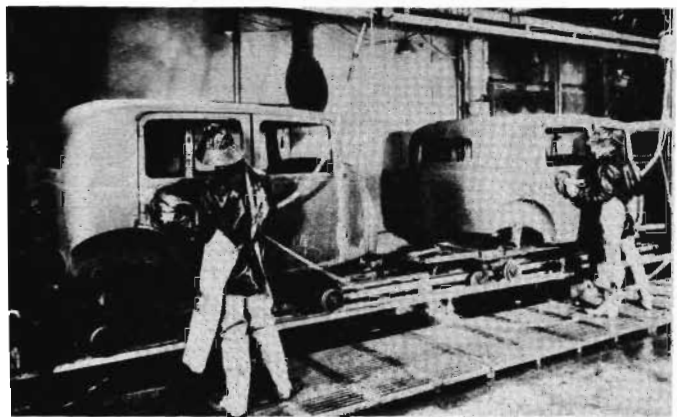
The foundries, forges and die-casting installations were at Clichy, in the Rue Vassou. The foundry was blown by a plant embracing eight 450-h.p. compressors, three 1,200-kilowatt turbo-alternators, an electrical sub-station, steam recuperators and four Stirling boilers of 35,000 lb./steam hour. The furnaces for the boilers were fed with pulverised coal and controlled by a master stokehole. There were ten enormous cupolas, grouped in pairs and automatically charged, capable of making 300 tons of molten metal every day. The moulds travelled to the pourers on rollers, over a concrete floor. Many coloured operatives were employed.

In the Avenue de la Gare at St. Ouen the press-shops were situated, where three Keller profiling machines made the prototype dies from which dies and punches for the presses and stamping machines were copied, and the panels for the Citroën all-steel bodies stamped out and assembled. Automation had already arrived in these press-shops by 1930, some 150 fully automatic machines punching out small parts without supervision. One complete Citroën body was produced every eight hours, painted and ready for its chassis, 17 assembly tracks, each nearly 400 ft. long, being employed. These bodies were conveyed on lorries to the assembly plant at Javel, smaller parts being taken away on Citroën-Kegresse creeper trucks.



At the Grenelle factory in the Quai de Grenelle front and back axles and steering gear was assembled by 2,000/3,000 operatives, jigs being widely employed and conveyor-belts keeping production moving. Fifty Gleason cutters, newly installed, turned out crown wheels and pinions and in a special corridor back axles were tested for quietness and the Ferodo-lined brakes bedded in. A German oven with moving conveyor was used for heat-treating final-drive bevels and a coppering installation was in operation at this depot of the great Citroën organisation.

Engines and gearboxes were assembled at the Gutenberg works in the Rue Saint-Charles, where over 2,000 people were employed and American hand-controlled and automatic machine tools had been installed. Overhead belting was still much in evidence; smoking in all departments was prohibited.



At the main factory at the Rue Balard, Javel, chassis were assembled, the coachbuilt bodies made, the cars finished off and dispatched to the hall from which agents and owners took delivery. Here, too, were the administrative offices. In addition, Citroën in those days built the Kegresse vehicles at Suresnes, made leaf-springs for the chassis at Les Epinettes and had a machine-shop at Lavellois. Some 12,000 workpeople were to be found at Javel, assembling the cars on 50 conveyors extending over nearly 12,000 ft. of floor space. A chassis was completed every 24 minutes and as each left the assembly line its engine was started-up and it was driven away to have the body put on it. Pneumatic hoists brought engines to the assembly tracks on overhead railways. The components were bench-tested before assembly and the chassis run with its wheels on revolving drums, which recorded electrically the speed and power readings. This output of 1,000 cars a week did not include the British Citroëns, then manufactured at Slough.

Thus were the popular 13-30 and 20-h.p. Citroën cars of nineteen-thirty produced. Hand-assembly was a thing of the past at the Citroën plant—mass-production, clearly, had intruded into the vintage scene!

Classified

Sales, Wants, Toys, Books, and Miscellaneous.

Events



SEE
STOP PRESS!

For Sale

JOHN AUSTIN has the following new spares available. For Light 15's: Brake pipes 1946-1955, Brake shoes (exchange), Front and rear wheel cylinder kits, Master cylinders, Brake drums front and rear (skimmed), Wheel bearing front and rear, 1 new set easy clean wheels (4), Wishbone pins and bushes (exchange), Driveshafts (reconditioned) when available, New clutch plates, Reconditioned pressure plates (exchange), 1 new rear door (big 15) off side, Shock absorbers front and rear, Exchange cylinder heads, Timing chains, Exhaust front pipes, Torsion bars (new), Cardin couplings (exchange), Fan belts, Radiator hoses, Front cradle, Exchange radiators.

For Big 6's: Brake pipes (English or French - please state year of manufacture), Wheel cylinders, Master cylinders, Brake shoes, Front wheel bearings (when available), Brake drums, Driveshafts (reconditioned) when available, Secondhand gearboxes, Crown wheel and pinion (new), Timing chains (new), Reconditioned heads, Valves (new) inlet and exhaust, Shock absorbers, Rear wheel bearings, 1 new rear door (Big 6) off side, Front wheel cylinders.

Front end tools for hire - substantial deposit required. Stock of secondhand spares too numerous to list. PLEASE STATE YOUR EXACT REQUIREMENTS.

When replying please state year of manufacture, model and whether English or French, and enclose s.a.e. to Wellington House, High Street, Shirrell Heath, Southampton, Hants.

LES AMATEURS DES CITROEN ANCIENNES

offer the following new parts:

Pedal Rubbers12 FF
Bonnet hinges 11CV & 6 38 & 42 FF
11CV silencer 70 FF
Big 6 silencer 230 FF
Big 6 starting handle conduit ... 138 FF
Big 6 grille motif 98 FF
Apply direct to : 41 Rue Marcel Sembat, 59184 Sainghin en Weppes, France.

The A.C.A. have stocks of the following publications:

'Archives du Collectionneur - C4 ... 50 FF

'Archives du Collectionneur - Traction Avant 7, 11, 15 CV' 60 FF

'Comment entretenir et reparer une T.A (1957 edition) (contains many useful tips) 36 FF

Facsimiles of original factory brochures for B14 .. 25FF
C4G (30FF), 5HP (20FF), 10HP (30FF), 7 & 11 CV
Traction (25 FF), 15 - 6 (2) FF).

Apply to the address printed above.

UNREPEATABLE OFFER

The ACA are having specially woven a batch of original pattern grey striped woollen upholstery cloth, as fitted to the vast majority of post-war cars.

Further details unknown, unfortunately, but a solution to a hitherto insoluble problem of how to reupholster without deviating from original specification.

Write direct to M. Rene Fournie, Borde Haute, Route de Toulouse, 31620 - Cepet, F.

THE 1954 BIG FIFTEEN pictured below is in excellent original order cosmetically, has a rebuilt engine, brakes, clutch, etc., and is for sale at 8500 FF o.n.o. M. Morigner, the owner, knows also of a completely restored grey 11BL at the same price, and a 1955 Big 15 mechanically restored but needing minor attention, at 4000 FF. He says he would deliver, write to: La Grande Loge, 72650 Aigne, Nr. Le Mans, France.



'RIPE FOR RESTORATION' - A Slough Light 15 (Big boot), structurally sound though incomplete; Reasonably priced : Brynn Hughes 49 Providence House, W. Ferry Road, E. 14.

AN IMMACULATE 1956 Grey Lt 15; Grey, 60,000 kms on the clock, available in Rennes - photograph in England. Apply : Mr. A. Braddish, 254 Whalley Drive, Milton Keynes, MK 36 PJ. Phone; MK 76739.

DECOKE SETS AND SINGULAR triangular manifold gaskets. Decoke sets £2.50 (limited quantity) triangular flange £1.00 each. (Expensive but limited). Am tooling for manifold gaskets this year. Bernie Shaw, 45 Green Land, Windsor, Berks.

SPARE PART CATALOGUES reprinted by the Swedish B11 Club (Text in French) superb printing and illustration, better than the original. 45 skr each plus postage. From Bengt Olsson. 239 Sodra Nas, 432 00 Varberg, Sweden.

SPARES FOR TRACTIONs - will try to help with any parts problems new or used. Please include any available information, part numbers, diagrams, photos etc. Contact William H. Skinner. 6661 Hornbach, Pirminius, Str 11, Germany.

GASKETS GASKETS GASKETS GASKETS GASKETS

Complete head sets available for : B14, 19.3HP (C6F), 2)8 HP (C6G), 12-24 HP (C4), 13.9 HP Big Twelve (C4G), 11.8 HP Type 'M', 10HP (8CV), and all models of traction - 12 to 15 HP (7 to 11CV). All at around £5 a set; apply to D. Cookson, 2 Roker Park Ave, Ickenham, Middx. UB 10 8ED (Uxbridge 37693).

GALLIC TRACTIONs FOR SALE:

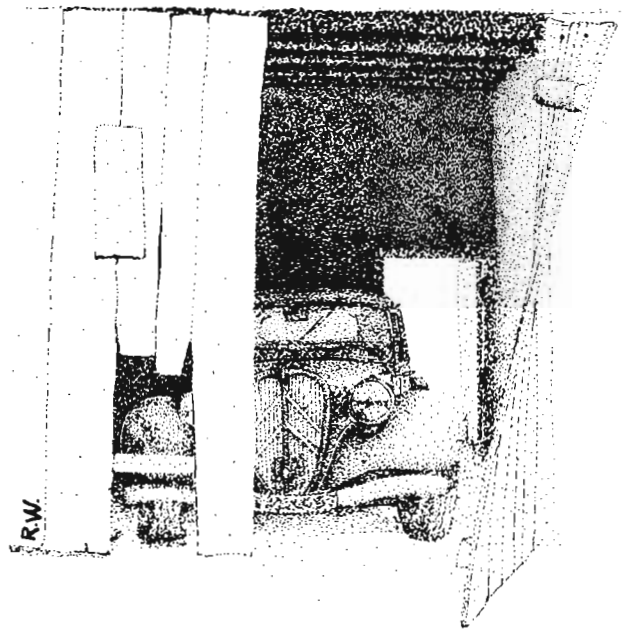
1953 (Big boot) Light Fifteen 11 BL in totally original condition - 5000 FF
A car of the same year and model, but needing restoration - 2500 FF
1939 Light Fifteen in poor condition for - 1000 FF
Apply - Alfred Morenas, 49 Cours Gambetta, 84250 Le Thor, France.

Wanted

ANTIPODEAN OWNER of 6H requires information re or supply of wiring loom for above. Also information or advice from fellow B6 owners re replacement of lousy Solex Carburettor with either Weber or other/s. Please. Information or advice to Peter Hudson, 5/19 Waruda St, Kirribilli, 2061, Australia.

Books, Magazines

TRACTION BOOKS - 'Quai de Javel - Quai Andre Citroen' by Pierre Dumont. The most complete history of the marque so far.
Two special numbers of l'Automobiliste - specifically traction, authoritative text (English translation) and unpublished pictures. Chater and Scott, Motor Bookshop, Syon House, Isleworth, Middlesex.



SCRAPYARD CITROENS
(contributions welcome!)

Dear Editor,

My Slough built Light 15 is now in use on the road, the rebuild being complete as far as my ability permits, work has now begun upon the French built Big 6 which I discover has a frost damaged block and a toothless first gear pinion. Nevertheless, the engine burst into sweet song after a lapse of ten years following the application of a new coil, battery and half a gallon of petrol, so I find that sufficient encouragement to continue with the restoration. I find there is no moral encouragement in these parts from other Tractionists as they don't appear to exist. I met one from Coventry a couple of weeks ago who had heard rumours of a white Citroen seen in Nottingham, - and as mine is white and has only been on the road for five weeks, it appears that news carries far and fast.

Last week I discovered a 1955 Big 6H in Nottingham awaiting restoration and not for sale. The owner was not aware of T.O.C., or C.C.C, details have been forwarded.

I also know of a 1933 C6 in Nottingham reputed to be the Motor Show exhibit and has only covered 33,000 miles since, it stands on its original tyres with seized bearings or pistons caused by inactivity. The owner could be induced to part with this rarity for a sum approaching £1,000.

Last year in France I discovered a scrap yard containing several Traction and nineteen thirties Peugeot and best of all a C6 Kegresse, complete, original but standing in the open. Prices were not discussed but the owner's appearance did not lead me to believe that he had sold many Traction for £2,000 or more. Maybe there are bargains still to be had.

Incidentally I am following up rumours of a retired Big 6 and at least half of a Light 15 reposing in a barn in Sussex not a million miles from you. If I get a reply to my letter I will put you in touch. Likewise if you hear of an intermediate gear for a Big 6 gearbox I would like to hear from you or other members. I have located a complete gearbox but the owner apparently reads 'Classic Car' and doesn't know when to stop adding noughts to the price.

Yours sincerely and the best of luck,
Graham Carr

*The Traction
Owners Club*



North Cottage, Mongers Farm,
Barcombe, Nr. Lewes, Sussex.



The Traction Owners Club



S T O P P R E S S .

PARIS NEWS - Graham Sage has had prolonged discussions recently with Rob Opscholten of the Dutch Club, and it was agreed that the most practical way for us to buy parts would be to make up three-monthly orders so that one person of either club could import all the parts at once. 'Traction Avant Nederland's stock is, of course, enormous, and on the whole their prices are very reasonable in spite of an unfavourable exchange rate. We are in the process of translating their price lists at the moment, and will publish it in the next issue. Therefore, if you have specific requirements would you send details to Graham, bearing in mind that they will not be collected until October - just right for the winter rebuild!

We also hope to publish a list of interchangeable parts - did you know for example that the handbrake cables of a 404 Peugeot are identical to a Traction, or that a 204's master cylinder is the same? Both can be bought off the shelf at any Peugeot dealer's, of course. We are still compiling a list of such parts, and if you know of any, please submit them for inclusion.

Guy Isbell asked us to tell you of some parts he is having manufactured (The prices in brackets are approximate and for guidance only). Please contact Guy, and not the club, for: Fan belts, Top and Bottom Hoses, New Valves (\$2.50ea.) Valve Springs (\$7 set), Exhaust downpipes (\$6.50 mild steel, \$16 Stainless), Silencers (not Servais pattern - \$3.50), and Exhaust Through pipe (\$5, + \$10 stainless).

And some good reports about Depanoto (of Nogent le Rotrou, 26400, F.); John Dodson has just come back from there, and apparently they have just got in stocks of Bootlid rubbers for post-'52 cars as well as the original French seating cloth. Although the latter was extremely expensive, their cars weren't - they had September 1934 car in running order for 4300 FF., which is encouraging. And Dr. Sellers writes to us that after his racing roadster was damaged on the armo at Culton Park recently, Depanoto were able to supply a replacement Ackerman arm for \$6 within a week.

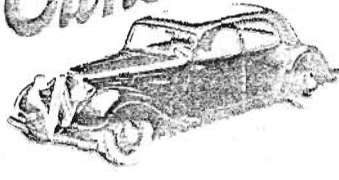
A SIX FOR THE IMPECUNIOUS ENTHUSIAST - We've just received a letter from H. Davis of 254 Straight road, Shrub end, Colchester, about his Slough Six. He also owns a Big Fifteen, and was intending to restore both but now has to go overseas and only has storage facilities for one car. He has therefore offered us the larger car for about \$160. Its sills are poor, and is partly dismantled, but is complete and seems to present an ideal opportunity for the enthusiast of little means who aspires to the ultimate in Traction motoring. You can phone him after 6.30 on 0206 76606.

FOR THE WELSH TRACTIONISTE, we have received another letter from our most enthusiastic correspondent, Rhodri Prys Jones, who wants to start a section for members in Wales and the Midlands. Would members in his area please support this venture, which is the life-blood of any club of our sort, and get in touch with him at 15 Ystad Ty Hen, Wann fawr, Caernafon.

Murray Adams, obviously something of a Sybarite, wishes to convert the interior of his Paris Big 15 to English specification - leather seats, leatherette door panels, wood-grained Window surrounds, etc. He would obviously appreciate not only advice but the appropriate parts. Can anyone help? He lives at 3 Chipstead Lane, Riverhead, Kent.

DON'T FORGET THE PICNIC - SEE COMING EVENTS!

The Traction Owners Club



THE TREASURE HUNT - A GOOD EVENT

On a beautiful Sunday, with the routes chosen taking us through truly idyllic countryside, you could imagine yourself to be motoring in the fifties - we hardly passed another car (modern, that is!) Graham and I did pass Fred Annells making the best of a three point turn in a narrow country lane in Bernie Shaw's Big 15, his navigator, Jean-Claude Ott of the 'Traction Suisse' Club, doing his best; which was as good as ours, as we too were going the wrong way! We can't have done too badly, as we managed to leave the start last and arrive at the finish early without passing any of the other competitors, who were apparently all going the right way (fools - it was much quicker our way!)

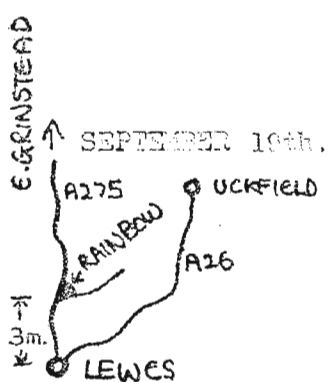
We arrived at Fingest for lunch at a typical country Inn, duly blocked the car park with tractions, and recuperated with salads and shandies while Bernie and Tony Hodgkiss endeavoured to score the first half of the clues. Leading at this point were Tom and Rosie Evans, from Wisbech, Cambs., in a '53 Big 15. Pubs shut, and off we went for the second half, again through some superb, very English, countryside, passing more horses than cars. We found ourselves in the lead once more after having left last, but this time it was all the others that were wrong (its true I tell you!) We all found the finish eventually without too much trouble (it helped having Tony's Dyane parked outside the pub) and Bernie sat down to tot up the final scores while Tony allocated points for a collection of goodies we had also had to find (they certainly made us work hard); they wanted a dandelion clock, only nobody told them dandelions don't grow in that part of Berkshire we were traversing, so we all cheated with thistles, a black feather, a Guinness bottle top, bird's egg, picture of the queen, inner tube, cigarette lighter that will only work first time, a four-leafed clover, two coins totalling seven pence (excluding 2p.) and last of all the longest stalk of grass, found by Mrs. Seggons, partner in Mennie Motoshay's Six

After all that, the winners turned out to be Greg and Kath Hayes in a white Big Fifteen with a score of 66 out of a possible 135; they were closely followed by Tom and Rosie Evans with 64, 3rd. Mike Tennant from Ross on Wye, 4th. Mennie 45, 5th Graham and I with 24, sixth Guy Isbell with a creditable 23 considering he only completed the second half of the course and last but by no means least Fred Annells with ten, his emergency envelopes unopened. Fred had made a "Floating Power" emblem to be presented to the winner. After lots of nattering in the car park of the 'White Horse, Henley, kindly loaned to us by the landlord, every one made their way home after an enjoyable and very well organised day. Our thanks must go on record to Tony Hodgkiss and Bernie Shaw for the considerable work and planning that went into our first, but I hope not the last, T.C.C. Treasure Hunt.

Tricia Brice.

COMING EVENTS!

- AUGUST 26-30th. INTERNATIONAL CITROEN CAR CLUB MEETING, with representatives from all European Traction Clubs. Friday is Traction day, with events and a visit in convoy to the Donington museum. It is held at Kenilworth, and we must try to congregate en masse for the biggest Traction gathering ever. See you there!
- SEPTEMBER 10th. PICNIC A LA FRANCAISE; another Southern meeting, unfortunately. In the grounds of Lord Monk Bretton's estate, Near Lewes, Sussex, there will be a meeting where everyone attending should try to bring French food and wine for a communal country buffet. Accesories welcomed - Ferned sunshades, period French records. Dress: French (stripy blue T shirts and berets preferred) No modern cars, though contemporary French makes O.K. Meet 11a.m. at 'The Rainbow' North of Lewes on the A275 to F. Grinstead D'accord?



E. GRINSTEAD



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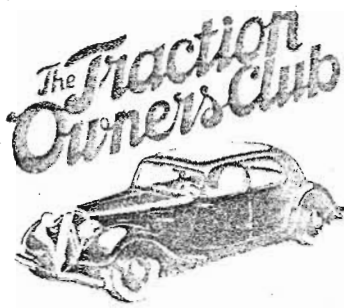
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Terry Homewood,
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LIST OF MEMBERS (contd)

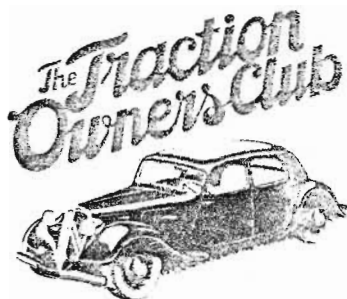
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|---|---|---|---|
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Apologies for any omissions.
