


The first gathering has been and gone at Penshurst, and in spite of the fact that it was an excellent turn-out and a thoroughly enjoyable day, it showed up the twin drawbacks that the T.O.C. is going to have to combat . . . (a) that very few new faces appear at such meetings and (b) the concentration of such events in the South-East. We now have a large map of the country marked with red dots for every known traction owner, and it is very interesting to see where the main groups fall. The largest is obviously London and the South-East, then a high proportion in the Midlands and North, and the rest, more scattered, in the West Country, Scotland and Wales. Walford Bruen is trying to drum up informal meetings in his area and if you are interested, please write to him. We are still in need of volunteers to organise something similar in the other regions :- even a small group can get something useful going in the way of spares swopping and mutual advice.

And on the subject of spares . . . a sub-committee has been formed to deal with this, to liaise with European clubs, ferret out sources, and research the possibilities of having certain parts made. If you have any queries regarding spares, can you write to Graham Sage, and he will do all he can to help you. Further developments on the spares front will of course be closely followed.

Our first 'proper' event will be the Treasure Hunt details of which appear else-where: it will be well worth the effort of turning out for this, (not forgetting it all goes towards the annual trophy if you are placed) - we guarantee you total chaos, tremendous fun, and the more of us there are the better it will be.

Later this summer, the I.C.C.C. meeting at Kenilworth will obviously be a great draw . . . and Friday is Traction Day. An expedition is being organised to Donnington Motor Museum, with the T.O.C. and European traction clubs travelling in convoy, and we are being offered concessionary entrance rates by the museum management. Our Social Secretary is busy thinking up further divertissements for the tractionistes on their return on Friday evening: suggestions and enqu-
iries should be addressed to Tony Hodgekiss. We have been invited to take part in the first National Classic Car Concours on August 22nd, at Weston Park, near Shifnal, Staffs., and have to choose the two most original and immaculate cars in the club dating from 1945. (God help us). If you think your car might qualify, please send as detailed photographs as possible to the editors post haste! The team will be competing against pairs chosen by many other one-make clubs, the eventual overall winners receiving Lord Bradford's Rose Bowl. Entrants till receive something towards their travelling expenses, and there will be various other prizes, I believe. If you are not entering your car, do support our team with your presence.

We have a very kind offer from Bob Cuppage who will extend help and facilities to any members stranded in the Lakes Area - his address is 'Greenside', Parsonby, Aspatria, Carlisle. Tuck it in your glove-box for future reference.

It seems that the days of finding cheap tractions in some obscure corner of France are gone forever - witness the car advertised in 'Classic Car', a presentable 1954 model resident in France for $£ 2,000$; or the $£ 3,000$ plus 'unique' (special boot, tinted windscreen, chrome Marchals, valve radio) Big 15 in this month's 'L'Automobiliste', we would be interested to hear from anybody who had managed to buy a bargain traction in France recently. (The Editors idea of a bargain being somewhat coloured by the fact that their first beloved and immaculate Light 15 changed hands for 100 francs and a glass of pastis . ...) G. $W$.



Among the most popular of the lowerpriced French cars is the Citroën. It has built up a reputation for trustworthiness and comfortable riding qualities which have given it sufficient popularity to enable series production to be undertaken on the largest scale, with the usual results of lower overhead charges and reduced prices. In addition, carefully planned service is available to Citroën owners, and spare parts are easily obtained and cheap.
Durability is the special feature of these cars, and it was in order to obtain exceptional wearing qualities that the allsteel body was early adopted by Citroën. This body has a very long life, and does not develop squeaks or rattles. It is also singularly free from distortion, so that doors work smoothly after long use and there is a desirable absence of draughts.

Durability was also the quality which prompted the Citroen engineers to concontrate upon the four-cylinder engine. The aim was not to attemopt to offer special refinements but the utmost robustness that could be provided for the money. The design also shou's the influence of the Continental roads for which it was primarily got out. for throughout the chassis evidence will be found of ample margins of strength in the conmponents.
Limitation of morlels has been practised with the ohjert of achieving the best possible results from series production. This also facilitates service. Two models have achicved world-wide popularity and there are two other models, both with six-eylinder envines, one with a slightly larger bore than the other, but otherwise resembling it closely. The models range from the 12-24 h.p. with four-cylinder engine, to the Type C6G with the six-cylinder engine.

Citroen 12-24 h.p. The 12-24 h.p. model has a bore and stroke of $70 \mathrm{~mm} . \times 100 \mathrm{~mm}$., giving a cubic capacity of 1,539 c.c. The R.A.C. rating is therfore $12 \cdot 2$, and the tax $£ 13$. The eylinder bloek is of cast iron, and is fitted with a detachable head and
aluminimm pistons. Side-br-side inlet and exhanst values are fitted, and are operated from the ranushaft by adjustable tippets. Helical timing gears are used, and play in the camshaft and magneto drive shaft can be taken up by two adjusting screws fitted to the front of the timing case cover.
lenition is by marneto with fixed timing. Engine cooling is by thermo siphon assisted by a fan, and there is a Solex carburetter. The cluteh is of the single-plate type, and the gear-box provides three forward speeds and reverse, with direct drive on top. The lever is centrally situated.

An open propeller shaft and helical besel

gears carry the drive to the differential and back axle. Semi-elliptic springs are fitted front and rear. Stecring is on the worm and worm wheel principle, and the chassis wheels are of the disk type. secured by four nuts each. Brakes are fitted to all four wheels, there boing two independent controls. The hand brake operates the rar wheel shoes and the foot brake all four wheel shoes. The Citroun servo brake system works on the partial vacuum system, the pressure drop in the induction manifold being used to apply the servo action. A feature of the Citroen vacunm servo system is that should it fail the brakes may still be applied mechanically in the ordinary way.

Six-volt electrical equipment is fitted, and


The "Big Twelve"" or $139 \mathrm{~h} . \mathrm{p} . \mathrm{C}_{4} \mathrm{G}$ mode: of the famous French car, front view.

founded. It is of extremely robinst design in every particular. and is capable of giving long service and of withstanding rough use.

The engine is mounterl on rubber, and the Citroin serso four-whed brakes are used. Borlies fittorl as standard 10 this chassis give an exceptionally large amount of room for the enwime power. A section on the care and maintenaner of the (itroen $13-9 \mathrm{~h} . \mathrm{p}$. ear follows. and further details of the construction are aiven there,

Citroen C6F. The (itroën C6F has the six-cylinder engine. the engine capacity being 2.42 c.c. and the Treasury rating $19-3$ h.p. Approximately $45 \mathrm{~h} . \mathrm{p}$. is de. reloped at $3.000 \mathrm{r} . \mathrm{p} . \mathrm{m}$. Lnil construction is followed in the eveinder block and top half of the cranticase while the crlinder head is detachable. The bottom half of the cankcase, forming the oil reservoir for the engine, is of pressed sted.

The crankshaft is carried in four bearings, and there is a crankshaft vibration damper at the front end. 'The side valves are inelined, to give an efficientiy shaped combustion chamber. There are adjustable tappets in cast iron guides.
The carburetter is of the vertical type Solex, having two jets. $A$ hot spot is obtained by forming a contact between the inlet and cshaust manifolds. Ianition is by battery, coil and distributor, with antomatic advance and retarel. The distributor is driom from the camshaft by a rortical shaft. A centrifugal pump is employed in the engine cooling. and ther is a large fin driven by a V-belt from the rankshaft pulley. This belt also drives the dynamo.

The carburetter has an air filter. Clutch is of the single dry-plate type. and the gear-box gives a top ratio of $5 \cdot 1$ to 1 . The rear axle is of the bange type, and has an inspection plate to facilitate examination of the differential. Jinad drive is by Gleason spiral berel wears. Suspension is by semi-cllipic springs. On some of the Citroen cars sileutbloc bushes are fitted thronghout, with the cxception of the reat spring rear fower coupling, which has the ordinary shaclike pins and bushes. Where silentbloc bishes are fitted no lubrication is requitod. Both front and rear spriners are splaved to avoid rolline and swating and their action is controlled by hydrantic shock absorbers.

The stecring is of the worm and sector type, an! is totally emelnsed in a lons fitted
the petrol consumption works out at about 32 m.p.g.

Citroën C4G. Th Citroen " Big 12 " or $13!$ h.p. ear, as it is called hasa fourecylinder engine with a capacity of 1,767 c.c. and a tax of $£ 14$. Coil ignition is fitted to this model, and there is pump cooling. Single-rlisk cluteh and three-specd gear-box nre standard, while the final drive is by spiral bove! gears. Somi-elliptic springs and four-wheel brakes are standard. 'This ear is a development of the type upon which the reputa tion of the firm was


Citroên. Engine of the four-cylinder 13.9h.p. C4G model, forming one unit with clutch and gear-box. It is flexibly mounted.


Citroen. The C6G, a six-cylinder $20.8 \mathrm{~h} . \mathrm{p}$. saloon model. Also made as the $\mathrm{C} 6 \mathrm{~F}, 19.3 \mathrm{h.p}$
to the right side of the chassis. The front asle is of H section.
The Citroën servo system of operatiny the brakes is cm. ployed. It is fully: described in the section dealing with the carc and innintenance of the type C4G. A top speed of $56 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. is obtainable with 38 m.p.h. on scoond grar, and a petrol consumption of over 25 m.p.g.

Citroen C6G. This model resembles the Citroèn C6F in most respects. The engine. however, has a slightly larger bore ; the bore and stroke are $75 \mathrm{~mm} . \times 104 \mathrm{~mm}$. against the $72 \mathrm{~mm} . \times 100 \mathrm{~mm}$. of the 6 F rindel. The capacity of the CGG engine is therefore 3.650 c.c., with a Trasury rating of 20-8 h.p. The engine derelops about 48 b.h.p. at 2,700 r.p.m. Special points of note in this model are the slotued type aluminium alloy pistons with the light steel connecting rods. Helizal timing wheels are used, and a "fabricoid" timing wheel is fitted to the crankshaft to ensure silent ruming.

Thermotatically controlled radiator shutters are fitted and are adjustable by means of a device fitted to the top tank of the radiator on the engine side. The electrical equupurnt includes dipping locad lamps and a double clectric windsereen wiper. The head tane dipping arransement is incorporated in the neavible lamp. and when the switel is moved to the dip position the nearside hend lamp, beam is dipped and simuitanemsaly turned to the near side of the read, while at the same time the offside bead lamp is switehed off. A fuse of the cartridge trye is ineorporated in the dipping circuit.


Care and Malktenance. Citroën C4G ("Biz 12") For the fubsication of the engine the pressed stext basc chamber earries about one gallon of wil. This oil is replenished through a filter situatca on the left side of the erarine, the orition being closed by a cap. The oul tevel is checked by a dip stich on the same side of the engine. Two marks will be tuund on this stiek, representing the maximm amo minimam oil lerels.

Lubrication. The erearpump driven from the camshaft by heliea gears and a vertical shat draws oil from the base chamber and delivers it under pressure to the crankshaft main bearings. From these bearings the oil goes through the hollow webs of the crankshaft to the connecting rod bearings. Pistons cylinders and tappets are lubricated by the oil which eyudes from the connecting rod bearings. The usual precantions should be exercised in


Citroën, offside view of C6G six-cylinder engine. Note air cleaner and petrol filter. The C6F engine and chassis are very similar.
draining the sump after the first 500 miles, and thenceforward after every 1,000 miles. The oil is run out through the drain phag fitted at the bottom of the sump: the operation being earricd out immediately after the car has returned from a run, while the engine is still farm.

Decarbonization is recommended by the makers every 7,000 to 8,000 miles. When replenishing the oil in the sump after


Citroèn "Big Twelve." How oil level and
pressure are maintained. Note also method pressure are maintained. Note also method
of lubricating clutch withdrawal bearing of lubricating clutch withdrawal bearing
when oil is poured in filler.
decarbonization or draining care must be cxereised to see that there is no air lock in the oil pressure gauge pipe. If the prossure gange fails to read, the set-secew securing the pipe connecting oil pressure gatuge and lubrication system should be removerl. This serew is situnted at the reas of the crimkease on the right of the engine. Then lubricating oil should be injected through the orifice with a syringe and the set-screw replaced. The pressure gauge

should give a reading of between 25 and 35 lb . per icy. in. when the car is running at over 20 miles an hour. When idling, the reading of the pressure gauge may drop considerably below this.

The elutch withdramal race lubrication is automatic, oil being led to, it when the engine crankease is replenished. A small fray collects the oil, and it is then conducted to the withdrawal race duct through a pipc running on the outside of the erankease. When the engine is new the oil consumption is so snall that replenisbment of the base chamber is only necessary at infrequent intervals. In order to ensure that the chateh withdrawal race is not staryed during this period a little oil should be poured down through the engine filler cap on the side where the pipe is connected to the filler tube.

On the left side of the gear-box there is a level filler plug which should be removed every 1,000 miles, oil being introduced up to the orifice. This must always be done when the engine and gear-box oil are warm after running. A drain plug is fitted at the bottom of the gear-box, and the oil should be replenished every 4,000 miles. The Spicer pattern universal joints at each end of


The readily accessible rear axle oil level filler plug (A) on the Citroen "Big Twelve."
the propeller shaft need lubrimtion every 750 miles. Lubricators are prorided.

A level filler plug is fitted to the rear asie. The oil level shoud be inspeceed erery 1,000 miles, and draining shoald be done cvery 4,000 miles. The serewed plug on the steering box should be removed and grease supplied every 500 miles, while the fubrieation of the steering link rod and track rod ball joints shouk be done every 250 miles through the greasers provided. The front hub caps should be replenished with lubricant every 1,000 miles. Over-fubrication of these parts may lead to oil or grease getting on the front brake linings and so spoiling the braling. Stubaxle pins shouk be lubricated cyery 250 miles.

Greasers supply the lubricant to the rear luh bearings. Grease should be supplied every 2.0 miles. The greasers are fitted to the rar axle easing elose to the rear lab dust covers. Noving parts of the brake assembly should be lubricated every 3,000 miles. Lubrication of the cables

where they pass through the casing is emphasised by the makers as of paramount importance. Lack of lubrication at these points will adversely atfect the operation of the brakes and may cause them to jam on one or more of the wheels giving the impression that the brakes ane improperly adjusted.

A few drops of thin oill may be supplied to the dynamo every 500 miles and also to the rear ead of the starter. The front end of the starter has an oil-less type bearing. After about 3,000 miles running the rotary distributor brush should be removed and a few drops of thin oil put on the small felt pad bencath. This will ensure the proper working of the automatic adrance and retard mechanisn. The rater pump shaft ball race should be lubricated every 500 miles with thin oil and the shaft bush with grease through the lubricators provided.


Valves. Valve springs can be replaced in this engine without dismantling the cytinder head. The valve cover plate is removed and the tappet assembly is dismounted. The spring can then be fitted with the aid of a valve lifter. When the engine is cold the correct clearance between valve and tappet in this model is 0009 in . The inlet valres are slightly larger than the exhaust. After decarbonizing the tappet clearances should be checked. The enyine is turned by the starting handle antil the inlet valve on No. 1 ertinder (nearest the radiator) is closed. After the valre has closed the turning of the cngine is continued a further quarter of a revolution. This will ensure that botb inlet and exhaust value tappets of this cylinder are free. The fecler gauge may then be inserted to check the amount of the clearance.
If water leak; past the water pump gland the fault ran be corrected by adjusting the gland nut. This nut should be turned in a clockwise dircetion to tighten, and should only be turned suffieiently to correct the water leak. If it is tightened $t 00$ much. belt slip is likely to take place.


Citroen $\mathrm{C}_{4} \mathrm{G}$ or " Big Tweive." Adjustment of the gland nut remedies water leakage.

Timing. For re-timing the ignition the engine is turned until the piston of No. 1 cylinder is at the beginning of the compression stroke. On the right-hand side of the engine fywheel easing near the oi wage pipe connexion, is an aperture which is for the purpose of reading the markings on the flywheel. The firing-point is marked on the Hywheel "ALL ". over a red linc. The engine is turned until this mark is parallel with the line on the engine casing, and then the nut holding the bolt which is fitted transversely at the base
of the distributor is loosened. The distributor assembly is now rotated until the contact breaker points begin to open with the distributor rotor making contact with the segment to which is attached No. 1 sparking plug wire. The firing order of the engine is $1,3,4,2$.

Cluteh. Provided there has not been incorrect lubrication. cluteh slip can usually be traced to insufficient elearance between the clutch fork lever and pedal, so that the pressure plate movement is restricted. The adjusting screvs for the clutch pedal should be turned to give free movement of a bout $\frac{3}{2}$ in.
Steering. Stiffness in ihe stecring is usually the result of insufficient lubrica. tion of the stub axle pins and trach rod and steering link joints. The toe-in of the front wheels should be $\frac{3}{18}$ in. An


Float in the worm-eear on the steering is rectified by an adjusting screw in the top of the steering box.
adjusting screw for raking up play in the worm will be found on the top of the stering bos. For this work it is recommended that a spanner of not more than 6 in. in length should be used so that all possibility of damage may be a voided.


Brakes. The brakes will need adjustment when, with the pedal depressed, the distance between the peclal and the floorboard is less than $1 \frac{1}{4} \mathrm{in}$. To adjust the brakes all four whecls must be jacked up and the adjusting screws found on the inside of the brake drums on each wheel thrned in a clockwise direction, until all four wheels are locked. The screws are then undone about eight teeth on the locking spring arrangement, the teeth being felt in engagement as the serew is turned. Then the brake pedal should be depressed get in. and held there by a piece of wood. or packing piece, whik the wheels are turned. 'The resistance to turning on each whieel should be equal. Differenees should be climinated by the adjusting screws. Finally, eare should be taken to see that all four wheels are quite free when the pedal is released.


Citroin. Adjusting the final drive for wear. Shims are removed from the pinion, and furtiner adjustment of the crown wheel is available by loosening the adiusting ring locking plates as shown.


## ттасстіо EN AVANT!

These pictures are reproduced to whet your appetite, to inspire the more enterprising tractionniste to consider campaigning a car in appropriate events next season-and to encourage the less adventurous of us to actively support them.
The car illustrated is of course, Dr. William Seller's roadster - certainly the fastest Lt. 15 in this country, which has proved extremely competetive on both English and Continental circuits.
An article in the Citroenian already dealt with the aquisition and early career of the car - suffice it to say that is is a 1937 model, found in a French scrapyard in 1972. Being a pre-war example, of course, it is recognized by the VSCC as a post-vintage thoroughbred, and was fielded in twin SU guise, with considerable success in VCSC events, (coming 3rd in its first Pomeroy Trophy for example).
These more recent pictures show the car in even more potent form, in so far as William Sellers later replaced the twin car-
burettors with an Arnott vane type supercharger mounted in the spot normally occupied by the dynamo. A spare battery is therefore a necessity!
The most serious problem as yet encountered has been, predictably, the gearbox; both 4 speed and standard gearboxes have succumbed to the stresses of the appreciably increased power they are made to transmit. Otherwise the car seems to have proved very resilient. We hope to cover the car's specification and career hitherto in a future issue.
This is beside the point - which is that our cars are stronger than we often give them credit for (they were after all designed to withstand the worst abuses of French taxi drivers, gangsters, peasants and police. etc.), and when driven with panache, can be a match for most of their contemporaries. The Classic Saloon Car Championship seems to offer an ideal opportunity. How about it?


At the Bugatti Owner's Club Hill-climb at Prescott (best time ; 53 secs.)
At Copse corner, Silverstone ; fastest time for the club circuit is 1 m 30 sec . (to give some idea of proportion, par time for an ' $E$ ' type Jaguar is 1.15 )



Jorn Jordan's Slough Light 15.


The treasurer.

mu, Mus Toung Garrett.


The secretong's spouse-Gramam Bince.


Ximmaculate B2. vier.


Teny Homewoods Slowgh Light is.

## $\frac{\text { Penshustorling }}{2}$

As previously agreed, the South Coast Traction contingent met at a spot deep in the Sussex countryside on Sunday morning, so that we could travel to Penshurst in convoy. First to arrive were the editor's car, looking badly in need of its promised restoration, and the immaculate French Light 15 and Spanish Big 15 of Mike Tolfree and David Shepherd respectively, the proud owners proceeding to subject each other's cars to a minute examination. David Shepherd soon had volunteers crawling on hands and knees through the long grass looking for a suitable twig with which he could plug the hole in his radiator where the overflow pipe had broken off . . . . this proved later to be not such a good idea! The final car arrived to a round of applause John Austin had very gamely brought his magnificent white roadster up from Southampton, in spite of an oil consumption in excess of thirty miles to the gallon! Oil cans were turned out from every car, the roadster filled up, and the convoy moved off: six tractions in line being quite an impressive sight hammering through the Sussex countryside! Those following John were soon wondering where the oil on their windscreens was coming from . . . . At Crowborough the Shepherd Big 15 had had enough of its twig and blew a hose for good measure. coasting to a hot and steamy halt. Having an excmplary owner, it of course carried a replacement in its boot, and the operation was quickly performed in front of a knot of interested locals. Our resident camera man had gone in search of a convenient bush at the time, and so the incident went unrecorded. Sitting in a 2 mile traffic jam on the Penshurst road, we had to restrain certain members of the convoy who were all for taking to the Gallic side of the road and leap-frogging the queue: Guy Isbell was lost sight of behind an enormous coach when he leapt gallantly out of his car to proffer aid to a steaming XK 140.

The Pageant itself was packed with interesting ears of every age and type: The Traction turn-out was the best for years, 18 cars in all. plus a charming and immaculate B2 saloon imported from Spain. Many people stopped to talk, including Jonathan Wood. of 'Classic Car,' who was grasping an enviable pile of motoring books that he had bought at one of the stalls. John's roadster attracted much attention, not surprisingly, and a few eyebrows were raised at the sight of David Shepherd whipping off the English number-plates of his car to reveal the original Spanish registration number beneath.

Star of the show perhaps? . . . . a superb blue Delage D8 saloon that condescended to park within sight of the Traction line-up. And if you think you've got tyre problems, how would you like to produce the means foa full set of $700 \times 21$ 's sighted on a gigantic Minerva ? ! . . .


Johm Austins oily twelve.

# Citroen Six Now Here 

New 2.8-litre Model, Announced Nearly a Year Ago in France, Offered in Slough 1940 Programme : Three Styles of Equipment on Four-cylinder Cars

DEFINITE announcement of the new six-cylinder Citroen is now made in this country. It will be recollected that the car inade a preliminary appearance at the Paris Salon last autumn, and a description of the main features, together with performance and roadhandling impressions, were given in The Autocar of March 17th last, following a trial of one of these cars in France.
The front-wheel drive Citroens in the

A cut-away view of the new sixcylinder model, showing the engine, transmission, and suspension details.
12.8 and 15 h.p. sizes have firmly established themselves, the same fundamental design having been continued for five years. Improvements have naturally been incorporated from time to time, and, in particular, a distinct advance has been made in finish and equipment compared with the earlier examples. Assembly and finishing are carried out at Slough.

As to mechanical improvements, which are not necessarily seasonal, several items have been incorporated during the past year, taking their place in the production samples. The new sixcylinder should still further increase Citroen prestige, for it has a fine performance, is admirably equipped, especially in the inore expensive form, and most comfortable as regards both seating and suspension.

The broad features of Citroen design, which is fundamentally the same for each of the models, may be outlined. First, of course, there is the front-wheel drive. Then the suspension is by means of torsion bars, not leal springs, and it was really this car which first brought torsion bar springing into widespread notice on a production car. The front wheels are independently sprung. There is no semarate chassis frame in the normal sense, steel pressings wolded together forming a shell which is the foun-
dation of the body and also the housing for the engine and transmission units and the mounting for the "axles." Low build is obtained, and a note. worthy advautage deriving from the front-wheel drive is the provision of fat foors in boti compartments.
With certain differences secessitated by the heavier and larger unit, notably the cradle construction whici takes the


[^0]place of a normal front axle, and to which the suspension units are attached, the design of the six-cylinder is on similar lines to that of the existing cars. The wheelbase is the same as for the present Big Fifteen model, 10 ft. $1 \frac{1}{2}$ in., but the track is wider, being 4 ft . Io $\frac{1}{2} \mathrm{in}$. at the front and 4 ft . 9 in . at the rear. Also, the engine has the same bore and stroke as the 15 h.p. four-cylinder engine, 78 by 100 mm ., giving a capacity of 2,867 c.c., a rating of 22.0 and a present tax of $\not £_{17} 5 \mathrm{~s}$. The overall length of the power unit has been kept down by means of a modified design ol gear box, which is shorter from front to back. As opposed to rear-wheel drive practice, the clutch, gear box and differential and final drive casing are ahead of the engine itself, instead of behind it.

Before mentioning further details of the new design it is desirable to refer to the policy of Citroen Cars, Ltd., for the 1940 scason in relation to the whole range of models. These cars are of two main types, the smaller being the Twelve, rated actually at 12.8 h.p., having a wheelbase of 9 ft . $6 \frac{1}{2} \mathrm{in}$. and a track of $4 \mathrm{ft} .4 \frac{3}{3} \mathrm{in}$., the capacity of the four-cylinder overhead-valve engine being 1,628 c.c., tax 6915 s .; in this same size of car a 15 h.p. four-cylinder engine is available, the model thus provided being known as the Light Fifteen. A larger main type is the Big Fifteen, of 1,91I c.c., with a normal wheelbase of loit. $1 \frac{1}{2}$ in. and a track of 4 ft . 8 in ., there also being a long-wheelbase chassis of loft. gin., which carries a seven-seater saloon.

The following is the full list of models and prices for 1940:-
Twolve.-stardard saloon. £198: De Luxe
saloon. £238; roatister. £268. Grand Luxe:


 Luxe: saloon. £260 : roadster, $£ 290$.


Big Fittsen. He luxe: saloon, £278; rointster £298; seven.scater salonn, £298. Grand Luxe: saloon, f290; roadster, £310; seven-seater Six-cylinder,-Standard saloon, £328; Grand Luxe saloon, £370.

Particular attention is being paid to equipment, and, in addition to de luxe styles, equipment of a more elaborate nature will now be available, known as Grand Luxe. The de luxe models continue with detail body improvements, including a new polished walnut instrument board, improved trimmings to the doors and polished wood fillets, a chro-mium-plated radiator shell with the familiar double cherrons behind the grille, and new-type bumpers. An interior heater of simple but effective type is a commendable Citroen feature Warm air from the radiator is led back through a controlled flap valve.
Grand Luxe tquipment, now introduced, consists of bigger chromiumplated Lucas head lamps and a pair of pass lights mounted on the front bumper, also two wind-tone horns placed below the hrad lamps, a Brooklands spring-spoked steering wheel, chromiumplated hub covers to the special pressedsteel wheels with wide-base rims, overriders for the bumpers, and a sun visor for the passenger in addition to that for the driver

Also, Slough - produced standard models have been introduced possessing exactly the same mechanical specification as the more expensively equipped cars but simplified equipment, allowing a buyer of the Twelve and Light Fifteen. and now of the new six-cylinder, to obtain a Citroen at the lowest possible price.

The specification in this case includes a fixed roof, leather-cloth upholstery, six-volt electrical equipment, steel facia board, and cellulosed radiator shell, together with twin-flament head lamps.
(Lett) New induction system and big air cleaner-silencer on the Light and Big Fifteens.
power and, therefore, an increased performance, without increasing the petrol consumption.
Among these are a new cylinder head used in conjunction with a higher compression ratio, 6.2 instead of 5.9 to 1. also a new induction manifold in con-


Thus there are three distinct ranges of the different models, and, since many purchasers find the appeal of the car in its individuality, the introduction of the more elaborate style of equipment at extra cost is likely to be well rectived. The six-cylinder, however. is bting offered in only two styles-standard and Grand Luxe.

The Light Fifteen and Big Fiftetn engines have improvements which correspond to the features incorporated in the new six-cylinder engine, giving greater
junction with a downdraught carburtitor, and a bigger air-cleaner and intaine silencer. The valves are shorter aad lighter than belore and bave double springs. connecting-rcds have been lightened. the:e is a new type of piston. and so that the ignition timing shall still better conform with the conditions of load. a suction-operated advance and retard contral mechanism is now used. Also, a point having :mportant bearing upon the quietness oi the drive and the s:noothness of the engine at low spetds.


Produced at Slough, this Twelve is the lowest-priced of the range.


The Twelve and Light Fifteen are of similar appearance.
the use of a heavier flywhel. tugether witha new clutch member is noteworthy. The roadster model, a smart convertible style with a bench-type threeseater front seat and roomy dickey seat. proved increasingly popular during the last season in Twelve and Light Fifteen form, and this style is now introduced also on the Big Fifteen.

This has more of the character of a drop-head coupe than of a normal twoseater with hood, forming a body which gives excellent protection and at the same time appeals to those who like fresh-air motoring when the weather
permits. It is available in de luxe and Grand Luxe forms. Improvements have been made in the head for ease of operation, and fixed windscreen pillars are now used, the glass being openable by a central winding control as in the saloon models.

Now again concerning the new sixcylinder; the engine is of businesslike appearance and has a good finish, including a plated cover for the rocker gear of the push-rod-operated overheadvalves. The crankshaft runs in four bearings and has a torsional vibration damper. Detachable hardened cylinder barrels are employed, as on the other models, and the oil level is indicated by a pointer mounted on the side of the crankcase, avoiding the need for using a dipstick.

Cooling is by a belt-driven pump, in addition to a fan, and a Solex downdraught twin carburettor is used. The compactness of the unit contributed to by a redesign of the three-speed gear box and differential casings has already been mentioned. High gear ratios are used, top being 3.87 to r , second 5.62 . and first 13.25 to 1 .

An unusual point is the use of a separate pump to circulate oil through the gear box, and again there is an interesting detail in the drive shafts to the front wheels. In these is incorporated a

New facia board and Grand Luxe style of interior, this range of equipment including a springspoked steering wheel.
semi-flexible joint of special pattern, utilising rubberised labric bonded to the metal and acting as a form of cushion drive. The brakes are Loctbeed bydraulic.
Al excellent driving position is provided, and the flat fionrs are most convenient. A sliding roof is fitted on the Grand Laxe version. The finish is very well done. In the back of the one-piece front seat are picnic tables; a folding arm-rest is provided at the centre of the iront: seat, and comes in just the right position. The instrument board is attractively laid out, with the main grouped panel of dials, and, in Grand Luxe form, a supplementary panel com-

prising an oil-pressure gauge and water thermometer
The luggage compartment is of useful size, and lined serviceably as well as attractively. Placed in the locker is an interesting detail, a petrol filter additional to the usual filter under the bonnet, clesigned to deal with any foreign matter before it has a chance of entering the main pipe-line.

## ROAD IMPRESSIONS

## Ample Power Allied to Smooth Running: Good Road-holding and Excellent Visibility

OV the road the instant impression given by the new six-cylinder model is one of solidity. This factor can, indeed, even be sensed from merely sitting in the driving seat. Although the car available for trial had not covered sufficient mileage to make it reasonable to use full throttle for any length of time, it is obvious that there is very good power indeed, with rapid acceleration up to that commonly usable range, $65-70 \mathrm{~m} . \mathrm{p} . \mathrm{h}$., with plenty of power still in reserve.

Second gear suggests a maximum of about 60, and makes a capital highspeed accelerating ratio. There is a definite touch of quality in the running. of the engine, the car by no means giving the suggestion that refinement has been sacrificed to performance.

Quite apart from the actual performance available, the hamding is admirable, the steering being high-geared and quick without being heavy for low-speed turning. and there is just the response to the brake pedal that is so essential on a tast car. The steering wheel is
excellently placed. The clutch action is ratner lighter than has been the case on previous front-wheel-drive Citroen models, and also the gears engage with a pleasing smoothness, synchromesh being provided on top and second. The lever operates in an open gate placed vertically to the left of the centre of the instrument board. Cranked in shape. it is of a length that renders gear-chang. ing a convenient movement in spite of the unusual position of the lever.
The engine is not perceptibly more noticeable when brought even fairly harshly on to the overrun than when pulling, and any sign of transmission chatter at that moment, as formerly noticeable in some of these cars, seems to have been removed. The torsion bar suspension is a striking combination of firmness for real stability of cornering
in sports-car fashion, and of a remark able suppleness that absorbs almost any form of shock without appreciable movement being transmitted to the car itself
Vision is first-rate, the bonnet is not too high, and an average-height driver can see the near-side wing as well as the off-side one. The absence of any quiver or vibration in the front-end components visible from the driving seat-radiator, head lamps, wings and so forth-is particularly noticed.
There is every indication of this being one of the more remarkable and more promising cars of the 1940 stason. A really long journey in it would be contemplated with pleasure in the knowledge, acquired even at short acquaintance, that it would "eat up" the miles. A full Road Test of this new noodel will be made at the earliest opportunity.


The six-cylinder Citroen is an imposing car with a good road performance.

## Cortespondence

All letters to Traction Owners Club, North Cottage, Mongers Farm, Barcombe, Nr. Lewes, Sussex.

Dear Editor,
Now these 15-6 roadsters. An awful lot of muddled writing surrounds these. It seems certain a) that the model was never catalogued, b) that like the 11's none were ever produced after the War, and c) that probably only six were made. The different transmission design rules out in my mind any cross pollinated 11/15 models, and the Deutsch-Bonnet reworked specials of the $1938 / 48$ were, I think, always 4 cylinder. The curious Antem coupe with a somewhat JensenInterceptorish grille was surely also an 11, though whether Leger, Normal or Long I wouldn't be knowing. I discussed the alleged local 15/6 roadster with Sigvard Heringa, the Sunbeam-Talbot and Dyna-Panhard fanatic in Geneva, who could be most helpful in digging out information on locally-owned cars and possibly difficult parts. Generally speaking the tractions have vanished from Cantons GE and VD during the past 12 months I noticed, but I did hear of a very fine Slough assembled ' 5215 saloon (rhd, leather, British instruments, and no projecting boot/ which could be for sale. Alas, a lot of the dope one gets is just scribbled down in notebooks and will take some weeks to decipher if it proves decipherable at all......
Kegresse remained a consultant with Citroen certainly up to the German occupation, but I have never heard any mention of him thereafter, since the company preferred all wheel drive to halftrackery on their post-War military vehicles, which included $4 \times 4$ conversions of their bigger rear wheel drive 3 to 5 tonners. (Incidentally these animals were still around with 1934 style nouvel
habillement front end sheet metal until late 1953, and you will still encounter these archaic looking beasts in most French speaking cities. I saw one in the flea market in Geneva three days ago. What I very much question is that this box ever saw the light of day in a production Citroen or in one shown to the public. First of all one must remember the chaos that was the French motor industry in 1947. To get any raw materials at all, two conditions were essential; 1) a good export record, and 2) the absence of any vindictive 'resistance management' anxious to lock up every one in the boardroon for collaboration. The 2 CV got into production as early as it did because everything was pretty well set up by 1940, and it could, but for the War, have been a new 1941 model had the management so decided.
It is tempting to note a similarity with the de Lavaud, bur historically there is good reason for saying no. Andre himself had been enamoured of that device in 1926/7/8 and even had a few B12's of B14's so equipped for tests. They were all ready to make it an option, when Mme. Citroen had a de Lavaud box go sick on her en route for Deauville or Le Touquet, whereupon her husband lost his temper and cancelled the whole contract. This story was told me by W. F. Bradley, who even in his 90's never fell into the trap of inventing the gaps in his memories, and who was one of the greatest authorities on the French industry.
Cotal? Citroen undoubtedly DID experiment with this, but then so did Wolseley and Jaguar in 1939, not to mention W.O.Bentley at Lagonda. The similarity


Denys Joannon's Six, bought for $£ 600$ in the late 60 's from a swiss who claimed it to have been Mme. Michelins. Why has it post-war bumbers? $(E d)$.
of casting would be obvious, as Citroen couldn't have afforded any kind of demi-automatique if it involved structural engineering as well as the other kind.
Incidentally, do watch out for a curious time lag between Paris and Slough. What was new on 1939 Slough cars undoubtedly reached native production some time between March and June 1938 and according to SwissFrench enthusiasts roues pilote are quite in order on genuine '38's. They also seem surprised to hear that no Slough '52's have projecting boots, though again I doubt if the final shape actually reached customers anywhere before about mid August that year. As a Fiat historian I am constantly puzzled by the infuriating trick of occasionally intruding a modification into the production line without telling anyone, even the subscribers to workshop manuals. Fiat often did this when there was a bad feature of design, e.g. the 50's lousy oil pump, and the totally inadequate starter on the original 500. They then quietly retro modded any any cars that were sent in.
I believe my Profile to have been about 80 per cent accurate, but on some historical points I am still worried.

Good luck, yours sincerely, Michael Sedgwick.

Further to Mr. Sedgwick's reference to the ex-Roquet Worblaufen-bodied 15-6 cabriolet last issue, we have received a letter from Gerry Malin, a Scottish member who is fortunate enough to possess, in addition to a 1934 'Super Modern Twelve', 'original down to the tassled passenger hangers' and a Light Fifteen roadster, the sister car to the Swiss-bodied Six mentioned (only two were made). We hope to include some shots of this machine in a projected article on special-bodied cars.
With regard to the factory bodied Six roadsters, we have pieced together the following snippets from early editions of 'La Traction Universelle'. After extensive research it was concluded that five left the factory-three of them as complete cars having been delivered as prestigious 'perks' to the three brothers of the controlling Michelins. With a family as pathologically secretive as the Michelins, it is difficult to substantiate such information, indeed, their very isolation encourages rumour of this sort, having been variously credited with the lost $V=8$ 's, 4 speed and and even twin-engined Sixes! However, a very 'Informed Source', in this case Pierre Dumont, remembers having seen such a car in Paris during 1946. It had an NH registration plate, signifying the Puy de Dome, the Michelin's home department. Coincidence? Anyway, nothing is known as to what became of them. Unless, that is, the white Illinois car is one - remember the rumours of the ex Michelin V-8 roadster supposed to have crossed the Atlantic? Any connection?
To resume, then, we are left with two untrimmed, engineless cabriolet rolling chassis (but fitted with 6 cyl front cradle, suspension, etc.) left at the works, where they languish until 1959, when an enterprising Clichy 'garagiste' buys them both. One he spends much time and expense on constructing to order. Disiliusioned with the cost of the project, the other car he scraps! Unused! The cars DID exist, for Joannon's red roadster actually has 6 cyl part numbers stamped on its windscreen surround. Can some knowledgeable authority enlighten us?

Dear Editor,
Practical Motorists article inspires me to make the follosing points:

1. The spanners most used on the Traction are 7, 8, 10, $12,14,17,19$ and $21 \mathrm{~m} / \mathrm{m} . \quad 11 \mathrm{~m} / \mathrm{m}$ is only useful for the grease nipples and brake bleeding nipples. There are no $13 \mathrm{~m} / \mathrm{m}$ and precious few (if any) $18 \mathrm{~m} / \mathrm{m}$ or $20 \mathrm{~m} / \mathrm{m}$ nuts or bolts. Further sizes are seldom used (though 23 and $26 \mathrm{~m} / \mathrm{m}$ sometimes come in handy). $A 38 \mathrm{~m} / \mathrm{m}$ or $11 / 2$ inch $A F$ (discrepancies hardly matter at this size) socket will take care of the nuts/grease caps on front and rear hubs. 2. I would advise caution in raising the engine by jacking on the sump drain plug. The sump, I find is not all that solid and always play safe by raising the unit at the front end of the sump, placing a block of wood between the jack and the sump.
2. Easing the piston rings into the barrels by hand is a lethal business for the skin of your fingers, I have found! Using a ring compressor (or a jubilee clip) is less painful. 4. PM mention the possibility (and desirability) of adding a by-pass oil filter when the sump is off. Does anybody have any ideas on what to fit, and how and where to fit it? Also, is it possible to adapt the system for a full-flow filter?

Yours amicably, Murray Adams.


> This is ourdub post-card, if you would like six for 30 p, please contact. the secretany.


SCRAPYARD CITROENS
(contributions welcome!)
A Light 15 missing radiator, gearbox and grille in Adversare, near Billingshurst, Sussex.

Mr. Cotterell, of Denver Garage, Denver, Norfolk, has written to us about a $\operatorname{Big} 6$ in a local scrapyard. It's on good $185 \times 400$ 's as well. Apparently rusty and has been used as a dog kennel for the guard dog, and the owner will not brake, but will sell for any reasonable offer. Restorable perhaps, or even for parts.....

Not yet a scrapyard Citroen, but unless someone wants J.D. Cliffe's 1953 Light 15 . . . .
He lives at 21, Helpston Road, Ailsworth, Peterborough.


## 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, I new set easy clean wheels (4), Wishbone pins and bushes (exchange), Driveshafts (reconditioned) when available, New clutch plates, Reconditioned pressure plates (exchange), I 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 6s: 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, l 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.

THE FOLLOWING PARTS are being manufactured new in limited quantities: hoses, gasket sets, wheel cylinders and repair kits, bub and brake pullers. Will those interested please contact Guy Isbell, 'Filkins', Forestside, Rowlands Castle, Hants, with a view to establishing quantity of demand.

## ls your TRACTION TRAILING? GEARBOX GRAUNCHING? WHEELBEARINGS WOBBLING?

- Then phone Compton (Sussex) 213 for relief of symptoms (and wallets). Ask for Guy; mobile mechanic extraordinaire.

ENGLISH WORKSHOP MANUAL and spares parts catalogue, both in good condition; apply Richard Smith, 21 The Brendons, Sampford Peverell, Nr. Tiverton, Devon. Phone (day) Taunton 83117.

TWO GOOD PART-USED MICHELIN cross-ply 185 x 400 tyres, suitable for $15 / 6$ cyl, commerciale or familiale cars. Best offer secures. Write or phone to C.R. Roberts, 69 Haldon Road, London S.W.I8. Phone-01 870 2930;

A 1955 SLOUGH BUILT LIGHT 15, with sunshine roof, alas sans floor (removed during unfinished restoration) or brakes but with spare engine, gearbox and transmission assembly, has been offered to us. The owner E.J. Lowell, will not break and lives at 1, Hillcrest Lane, Husbands Bosworth, Lutterworth, LE 17 6LB. (Husbands Bosworth 363).

1952 BIG BOOT LIGHT 15, Light grey over dark grey, very good condition, new tyres etc., M.O.T one year. 019795936 (Ashtead)

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.

BLACKHILL GARAGE OF WARWICK RD, Stratford on Avon (078 985 222) offer a 1946 Light 15 for $£ 695$.

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 that the original. 45 skr each plus postage. From Bengt Olsson, 239 Sodra Nas, 43200 Varberg, Sweden.

Rebuilt driveshafts and cardans for 11 CV and 15 CV , new hubcaps, (French type) front bumper brackets, brake and master cylinders, hoses, fan belts, silencers, downpipes, gaskets, barrels and pistons. P.O.Box 141, Kenilworth, Illinois 60043, U.S.A.

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

JUDY AND GINNY lack a grille and Front bumper for their bent 1953 French Big 15- please contact c/o the magazine.

SCALE MODEL TRACTIONS WANTED - all types write to Pierre Sterckx, Ave de la Bergere 30-1080, Brussels, Belgium.

WANTED FRONT AND REAR red leather seats in good condition for English Light 15, also a pair of bumpers for French model. Please phone Lapworth 3185 (Warks)

I HAVE OBTAINED a copy of a Lt 15 stores catalogue with some pages defaced. If any member could lend me a complete catalogue to enable me to photo-copy the relevant pages I would be most grateful. Please telephone reverse charges, Ipswich 830130 or write to Graham Bradley, The Limes, Ipswich Rd, Claydon, Ipswich, Suffolk.

FULL SET(S) FRENCH RIMS, with or without hub caps, must be good condition. Bernie Shaw, 45 Green Lane, Windsor, Berks. Phone - Windsor 62746.

FOR 1955 15/6 'H', RB distributor cap, rotor arm and points, indicator lens and switch. Rod Stribley, on 01-8761745.

STANDARD MAIN BEARINGS, wiper grommets and blades (roof mounted type), a period radio and any advice as to fitting a suitable roof rack are requested by Mr. Kirk, or 2 Broomknowe Drive, Kincardine by Alloa, Clackmannanshire. Phone - Kincardine 30475.

URGENTLY NEEDED: One lens for Marchal 630 spot, 6 v dynamo, and hub cap securing bolt for Parisbuilt traction. Julian Ledingham, Il Montpelier Walt London S.W.7. Phone 01-5847976.

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.

Chairman/Magazine John Dodson, North Cottage, Mongers Farm,
Barcombe, Sussex.

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[^0]:    A "first-line" petrol filter on the Six, additional to the usual filtering.

