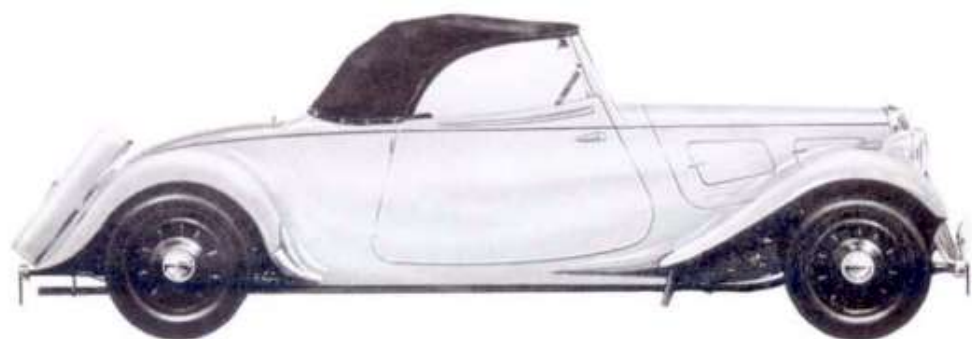


# The "Traction Avant" Citroëns, 1934-1955



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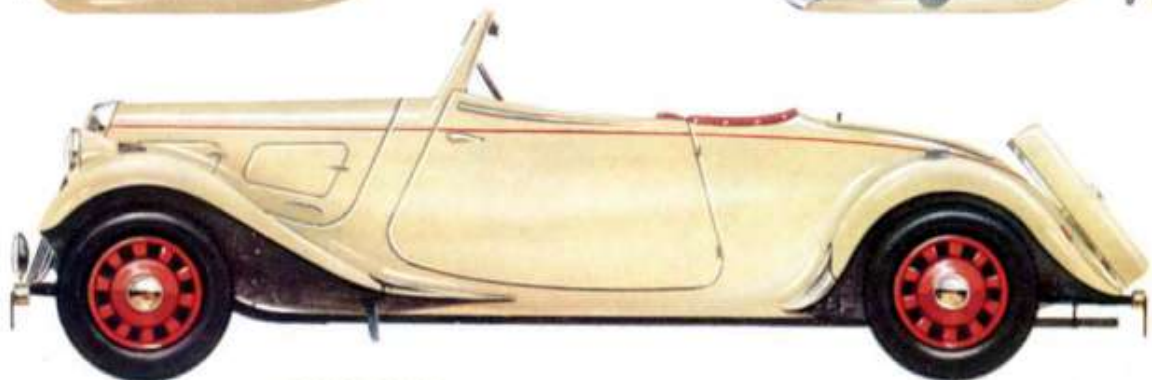
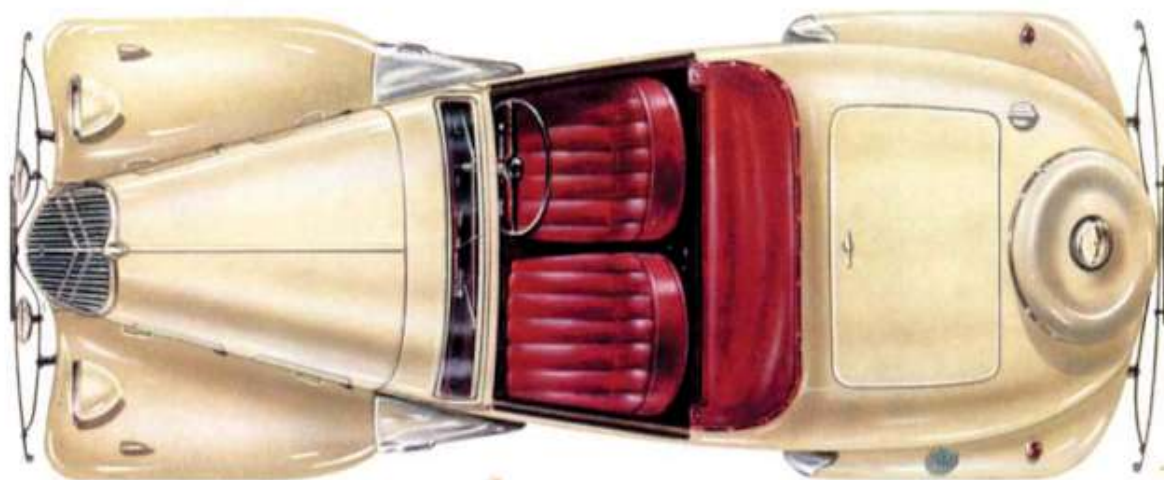
UNITED KINGDOM TWO SHILLINGS

UNITED STATES & CANADA CENTS

**PROFILE PUBLICATIONS**



THE 1939 CITROËN  
11CV LÉGERE  
(LIGHT FIFTEEN)  
ROADSTER, built by  
Citroën Cars Ltd.,  
Slough, Buckingham-  
shire, England.  
Owner: Anthony  
Tringham, Esquire.



# The Traction Avant Citroëns, 1934-1955



*The Spirit of Streamline: immensely evocative of 1935 is this factory hand-out showing one of the first 7CV roadsters with disc wheels and screen folded flat. Note the concealed horns in the front wings. (Photo: Citroën Cars Ltd., per Montagu Motor Museum)*

Many a Continental design, conceived purely as family transport in its native land, has won a totally different reputation in the hands of enthusiasts across the Channel, on the strength of superior handling. If the classic instance of this is perhaps the celebrated *traction avant*, it is ironic that it made its greatest impact in Britain in old age, when its traditional appearance and slow-revving, outmoded, long-stroke engine won the '11 *Legère*' a place in the sun denied to it in the 1930s. Hence there is a tendency today to look upon the Citroën as a controversial Post-Vintage Thoroughbred rather than what it really was—an astonishing leap forward by a firm to whom progress had hitherto been synonymous with bargain-basement prices and advanced manufacturing techniques.

## ANDRÉ'S LEAP IN THE DARK—1934

If the Quai de Javel, with its overtones of the Detroit Method, and its pioneering work with *tout acier* bodywork of surpassing ugliness, was the last place in which to look for a revolution in design, still less was the economic climate of the 1930s suited to a wholesale change of direction—no wonder it bankrupted poor André Citroën! The European family saloon of the period was progressing towards i.f.s. of a rather woolly kind, aimed at a boulevard ride rather than the rapid negotiation of corners, but in other respects it was a stereotype. Four cylinders, side valves, three forward speeds (admittedly with synchromesh), semi-elliptic springing, plus boxy bodywork leavened by some curious interpretations of the fashionable catch-phrase 'streamline'—these added up to the stock mixture. The end product cruised at 45 m.p.h. on the straight, and could be cajoled up to 60 in favourable conditions. Citroën's own 6CV conformed to this basic theme; though it boasted synchromesh and Chrysler's patent 'Floating Power' engine mountings, it was afflicted with poor brakes, and its chief claim to fame is an incredible durability which enabled it to circulate interminably

round Montlhéry Autodrome, mopping up prodigious long-distance records. Though it was no worse than such contemporaries as the Peugeot 301 and Renault's 'Primaquatre', it was not for the enthusiast. Thus general astonishment prevailed in the Spring of 1934 when the striking new 7CV\* was unveiled: for apart from the much-publicised 'Floating Power', the Michelin disc wheels, and the well-proportioned vee-grille, it had nothing whatever in common with the 6CV.

The greater road-holding potential of the front-wheel-drive configuration was known, but had so far gained no serious adherents outside Germany—the legacy of the Cord had been its 'long, low look' and its cruciform-braced frame rather than its transmission. The Citroën may well have been inspired by a Ledwinka-designed prototype built by the Edward G. Budd Manufacturing Co. in Philadelphia in 1931—at a time when firms like Hupmobile and Packard were also toying with *traction avant*—but, as we shall see, the Budd influence was stronger in other aspects of the new model's layout. The big battalions still fought shy of overhead valves, despite the lead given by the world's best-seller, Chevrolet, who had been using nothing else since 1915; and even hydraulic brakes were distrusted by the purveyors of tin sedans in bulk, albeit Morris and FIAT had been fitting them since 1930. Lancia had put unitary construction on the map, but the 'Lambda', if not regarded as a specialist car in its native land, was never aimed at the masses. Hence Citroën were not merely spearheading a revolution—their advance slogan, 'Two Years Ahead of Current Motor Car Construction', was one of the understatements of the century—but also reshuffling their image more drastically than has any other maker in the history of motoring—except perhaps the Rover Company with their '2000' of 1963.

\*As befits a French car, the original Gallic *puissances fiscales* are used throughout the text. A guide to British equivalents will be found in the technical specifications on page 10.



*As it was in the Beginning: one of the first 7CVs poses for the public-relations camera. Exposed twin horns indicate 1934, while the single screenwiper and left-hand drive confirm the origins of this car as Paris rather than Slough.*

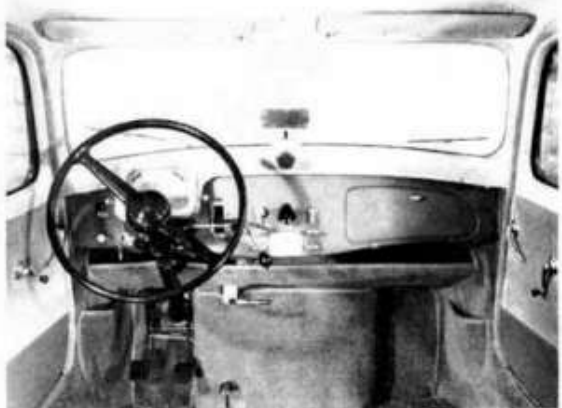
(Photo: S. A. André Citroën, per Montagu Motor Museum)

## THE TRACTION DESCRIBED

Unitary construction, admittedly, was a logical development of the Budd-type 'monoshell' steel bodywork that Citroën had been using for some time, and the integration of chassis and body had been a feature of the 1931 Budd prototype. The basis of the new *traction* was a welded steel structure consisting of a flat floor which served as a backbone, a vestigial scuttle, and a U-shaped 'wheelbarrow' terminating in horns to which the front suspension and power unit were bolted. Also part of this was the upper framing, to which the body panels were welded: no wood was used anywhere. The dead trailing rear axle was affixed to the after part of the floor.

Leaf springs were also abandoned in favour of torsion bars with their more constant flexibility. Extending at either side from the pressed-steel backbone were two arms, one above the other in parallelogram formation. The upper arms were free to swing in oil-less bearings from their points of attachment to the hull, while the lower ones were connected to the fore-and-aft-located torsion bars. The effects of such a system were the elimination of wobble, the retention of the front wheels in a permanent vertical plane, and a consistently parallel track. At the rear, a light tubular axle, sliding in sleeves attached to the wheels hubs, was supported by radius rods coupled to transverse torsion bars. Shock absorbers of friction type were used at the front, and hydraulics at the rear.

The o.h.v. pushrod four-cylinder engine incorporated a detachable head, detachable cylinder barrels and wet liners, and a three-bearing crankshaft. Cooling was by pump and fan, fuel was fed by a camshaft-driven pump, and the 6-volt coil drew current from a battery mounted under the bonnet.



*Gallie Austerity—the 'office' of an early Paris-built 7CV. Note the single dial with centrally-mounted clock, the dashboard 'gate', the neat control for lights and horn, the pendant pedals, and umbrella-handle parking brake—all common practice by the 1950s, though not in 1934. If the engine protruded a little way into the cockpit, the absence of a transmission tunnel was appreciated by passengers.*

(Photo: S. A. André Citroën)

The gearbox had three forward speeds with synchromesh on the two upper ratios, and was mounted in front of, and in unit with, the engine; the differential was interposed between it and the single-dry-plate clutch. Drive was taken through the primary and secondary shafts back to the bevel pinion, power being transmitted to the road wheels *via* a universally-jointed cardan shaft, with needle-bearing joints at the differential end, and a constant-velocity joint connecting shaft to stub axle. Inevitably, a degree of compactness had to be sacrificed—the 7CV measured

*'You undo a few buttons and it all comes unput!' A factory shot of the original 7CV aimed to indicate the ease of servicing. The principle of the 'power pack' might not be for the home mechanic, but it anticipated modern commercial-vehicle practice by a couple of decades. The method of attachment between hull and 'works' can clearly be seen.*

(Photo: S. A. André Citroën)



14 ft. 2 in. from stem to stern, as against the old 6CV's 13 ft. 8 in.

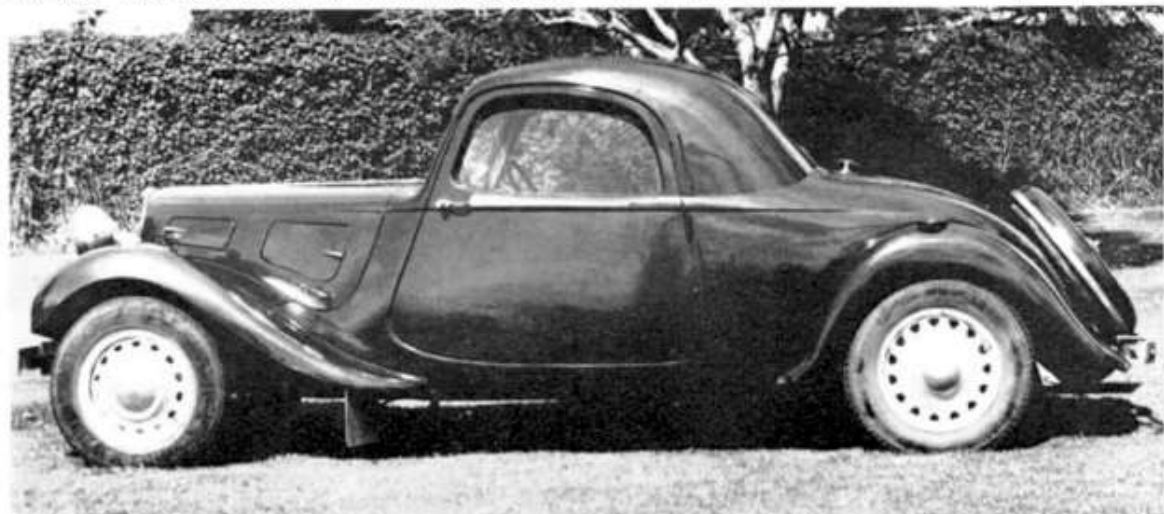
'Bodies' were outstandingly elegant in an era of studied inelegance. The Citroën, with its separate wings—which did not prevent a rear-seat width of fifty inches—and exposed headlamps, was not streamlined in the manner of Chrysler's contemporary 'Airflows', nor was it a true fastback for which back-seat passengers had cause to be unfeignedly thankful. It did, however, possess an integral boot (accessible only from the inside on early cars), while the adoption of front-wheel-drive resulted in an absolutely flat floor. Citroën took full advantage of this by siting the hand-brake, umbrella-handle-style, under the fascia, and the gear-lever centrally on the dash; though never an easy change, it was infinitely preferable to the column shifts of a later age. Alternative body styles were a handsome fixed-head coupé and an even prettier roadster, both with double dickey seats—the latter was, unhappily, to prove corrosion-prone.

### 'A CAR WE COULD NOT OVERTURN'

Thus *The Motor*, and thus most journalists who tried the new *traction avant*, *Motor Sport* rated the Citroën 'one of the most controllable cars we know', and on the road the car had few equals. Corners could be taken with complete disregard to weather conditions or road surface; 'there is no question of having to pull the car round; rather does it feel—as is actually the case—that the front of the car is pulling in the

desired direction, and the back following'. Steep hills, which had defeated earlier f.w.d. cars, held no terrors for the Citroën, which was subjected to Porlock and Countisbury without difficulty; indeed the present writer recalls seeing Slough-built cars being tried out on such Chiltern nastinesses as Brick Kiln Hill, a 1-in-5 acclivity which was not nearly so well surfaced in 1935 as it is now. It was found possible to drive over manhole covers and level-crossings at 45 m.p.h. without disturbing the passengers. The tester who felt that 'a driver unacquainted with the design would be unlikely to be able to tell that front wheel drive is employed', must have been very naïve, for the *traction* was not over-forgiving to those who lifted their feet on the apex of a corner, and there was quite a lot of motor-car to lose. But in the right hands the only hazard that would catch it unawares was a hump-backed bridge, and generally criticism was confined to the heavy steering and the 'vague' gear change.

All the car lacked in 1934 was performance—and finance. The astonishing roadworthiness enabled it to be cruised at 50 m.p.h. everywhere, but the original 1,300 c.c. (72 × 80 mm.) unit gave a modest 32 b.h.p., which was not really enough for a five-seater saloon weighing one ton. Even the '7S' version with cylinders of 78 mm. bore offered only 36 b.h.p. Before the year was out, therefore, the piston strokes of both engines were extended to 100 mm., giving capacities of 1,628 c.c. for the '7' and 1,911 c.c. for the '11', and outputs of 36 and 46 b.h.p. respectively.



*Sportive Styles: up to the outbreak of World War II, you could have your Citroën in roadster style, with hard or soft top. Above, the fixed-head coupé with right-hand drive with the perforated disc wheels as found on 1937-8 'Twelves' from Slough. Below, the 1939 '11 Normale' roadster on Michelin 'Pilote' wheels. Note the frugal use of chromium plate on the cars from Paris.*

(Photos: S. A. André Citroën)



Right and below right: *Indivisible Loads*: given a wheelbase of 10 ft. 9 in., and a sturdy 56 b.h.p. engine, the traction could satisfy the needs of the most prolific and utility-minded French family. These pictures show the revised '11 Normale' with rear boot introduced for 1953, (below) with triple face-forward 'occasionals', and (above) as a high-capacity station wagon with swing-up tail-gate. (Photos: S. A. André Citroën)



Even then the Citroën was never a particularly fast car, 65 m.p.h. being the limit with the smaller unit, while road-test figures confirm maxima in the region of 70-75 m.p.h. for the classic '11 Légère'. By early 1935 the four-cylinder range had crystallised into the form it would take until the outbreak of World War II—the 7CV (or 'Twelve' in England); the '11 Légère' (which Slough called the 'Sports Twelve', and later the 'Light 15'), the same car with 1.9-litre power unit; and the '11 Normale' ('Big 15') which was intended to replace the old-school C4 and C6, and came in two wheelbase lengths, 10 ft. 1½ in. and 10 ft. 9 in. The latter 'chassis' carried nine-seater coachwork and was also sold (in France) as a *commerciale* with removable seating and a tail-gate. English prices started at £250, and for his money *perfidie Albion*, unlike M. Dupont, was given 12-volt electrics (necessitating a larger battery box on the bulkhead), a sliding roof, leather upholstery, less austere instrumentation, and semaphore-type traffic signals. As a consequence, the Slough-built cars tend to be heavier.

Thanks to the intervention of the Michelin interests, the collapse of André Citroën's never very secure finances at the end of 1934 did not affect the *traction's* fortunes, though it killed off a promising big car exhibited at the Salon in the shape of a 3.8-litre Vee-8 with recessed headlamps for which 90 m.p.h. was claimed. The public was to wait another four years for a really rapid Citroën.

### CITROËN EVOLUTION

The *traction's* real merit was speedily established, and during the 1938-9 season the company, by now



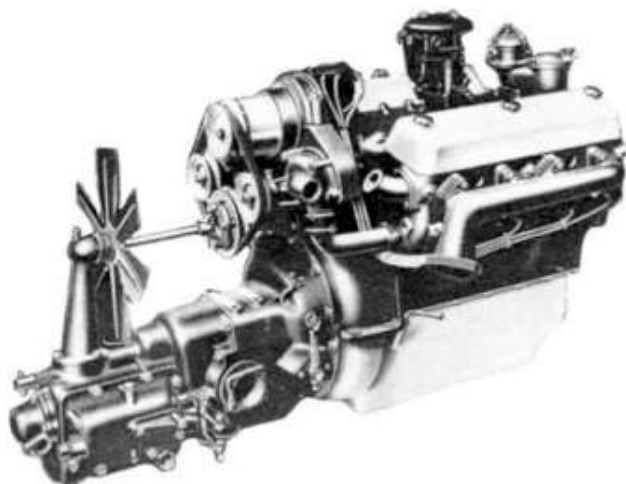
indissolubly wedded to front-wheel drive, were making a best-seller, with 61,640 units delivered to Peugeot's 52,796 and Renault's 43,388. Changes were few. Late in 1935 the cars acquired hydraulic dampers all round, while rack-and-pinion steering gear was adopted in the summer of 1936. At the same time the Solex carburettors were provided with air filters, and complaints of high cockpit temperatures

*Traction for the Family, 1934: recognisable by its forward-mounted grille, the '11 Normale' with 1,911 c.c. engine was available in England by the Spring of 1935.* (Photo: S. A. André Citroën)





The Citroën That Never Was—the 3·8-litre V8 of 1934 coincided with a financial crisis, and reputedly only six were made. The complete car was recognisable by a stylised front end and recessed headlamps, while the engine (below) was in effect a 'double 11' giving 100 h.h.p. (Photos: S. A. André Citroën)



were obviated by modifying the exhaust manifold so that it ran forward and downward. Hulls were undersprayed from 1938 onward to eliminate the drumming common to all early unit-construction vehicles. 1939 improvements included the curious Michelin 'Pilote' wheels with D-shaped rims and 'starfish' spokes, a selectrolock on the gearbox interconnected with the clutch (which came in for criticism later on), double-acting shock absorbers, and a new type of air filter. French buyers could also have a 56 h.h.p. 'Performance' version of the '11 *Legère*', and this unit was standardised on both sides of the Channel after the War. During the last year of peace the cars acquired downdraught carburettors, lighter valve springs, and a simple form of interior heater leading warm air directly off the radiator: this latter component, incidentally, had been mounted directly on the power unit on the first cars, but was divorced from it in 1935. Until 1952 the four-cylinder *tractions*, now offered only with the 1,911 c.c. engine, continued virtually unaltered apart from the abandonment of the 'Pilote' wheel in favour of conventional discs on French models, and the perforated type on Slough-built cars. Post-war examples can also be distinguished by the inclined bonnet louvres, supplanting ventilating doors. These were found on the 15CV 'Six' from its introduction.

Styling and appointments did, however, vary. Horns, exposed on the first *tractions*, vanished behind the wings in 1935, and disappeared beneath the bonnet

with the 1938 models. Though early photographs show different layouts, all cars soon acquired a typically Gallic arrangement of electrical controls on the steering-column, and instrumentation varied, especially on Slough-built examples. Paris always favoured a single dial set in front of the driver, and incorporating an extremely accurate clock, but in England the single-dial configuration (sometimes rectangular and sometimes rounded) gave way for 1937 to a polished wood fascia with twin dials. Painted grilles were found on home-market cars, only the chevrons being plated, but English Citroëns had chromium plate in 1935, cellulose in 1936, and partly-plated shells again in 1937. By 1939 even Slough had replaced their oil-pressure gauges with warning lights, while Britons were offered a 'Popular' model with 6-volt electrics, steel dash, cloth upholstery, and a minimum of chromium plate, which in 7CV form cost only £198. It did not survive the War.

After 1945 only saloons were offered, and Paris pursued a ruthless policy of austerity, with only a solitary colour—a matt black relieved by ivory wheels. This was a godsend to the new generation of Gallic bank robbers, whose *tractions* became even less obtrusive, as well as to the purveyors of bolt-on goodies, who marketed hideous proprietary grilles, Buick-style portholes and wrap-around rear windows (not unjustified on a long car with blind rear quarters and a poor lock), as well as practical aids to performance such as four-speed gearboxes and twin-carburettor conversions. The former enabled the Citroën's roadability to be exploited to the full—the factory box, with its ratios of 4·3, 7·3, and 13·1 to 1, was not conducive to neck-snapping acceleration—while the latter offered 80 m.p.h. for an additional outlay of a mere £30. Sales remained steady: the French factory delivered 28,992 '11 *Legères*' in 1950, and 30,928 in 1951, and M. Dupont had black, and liked it, until 1953.

### THE SIX-CYLINDER '15'

With finances healthy again, Citroën was ready to challenge Renault in the big-car class, and at the 1938 Salon the '15' was unveiled. The designation of the new model was confusing to Englishmen, for the 2·9-litre engine shared the '11's cylinder dimensions, and thus had an R.A.C. rating of 22·6 h.p. Output was 76 h.h.p. at 3,800 r.p.m., there was a four-bearing, counterbalanced crankshaft, and a twin-choke downdraught carburettor was used. In most other respects it was a scaled-up '11 *Normale*', though the clutch was of twin-plate type, vertical shock absorbers replaced the inclined installation of the four-cylinder cars, and the gearbox was more compact, the shorter and thicker drive shafts incorporating torque-resistant dampers, which sometimes failed, giving uneven drive and peculiar steering. The 15CV's box was also prone to oil starvation; while for all Citroën's space-saving manoeuvres, the end-product was a really big car, 16 ft. long, and afflicted with a turning circle of no less than 46 ft.—no shopping vehicle for Madame, this. On the credit side, it was a remarkable performer for its period, possessing all the '11's sure-footedness as well as a top speed of over 80 m.p.h. and a comfortable cruising gait of 70 m.p.h. on a 3·875:1 top gear. Though it was bought after the War in Britain by the diehards who liked the traditional styling, the superb road behaviour, the high-g geared steering (two turns from lock to lock), and such now-discarded amenities



*English Favourite: as the only Continental make to be bought on 'our' side of the Channel legitimately, the Slough-built 'Light 15' was a steady seller in 1950. The conventional disc wheels, inclined bonnet louvres, restrained use of chromium trim, and pastel cellulose are identification features.*

(Photo: Citroën Cars Ltd., per Montagu Motor Museum)

as a side-opening bonnet, an opening windscreen, and a sliding roof; and stolen by bandits who rated it the getaway car *par excellence*, it should not be forgotten that it also represented admirable value for money in terms of pure transportation, costing the equivalent of £220 in France in 1939, and a mere £370 in England (£15 less than a 2½-litre SS Jaguar) complete with pass lamps, heater, twin windtone horns, and a spring steering wheel. Unfortunately, deliveries from Slough had scarcely started when the War intervened, and by the time the '15' became a commonplace on English roads, it cost well over £1,000. Like its smaller sister, it was unchanged in post-war form.

### THE LATTER DAYS

Despite all manner of rumours from Paris, the Citroën went marching on. While Britons with a penchant for all-weather handling were still willing to pay four figures for an 11CV, and to endure the complexities of a vehicle that was not for the home

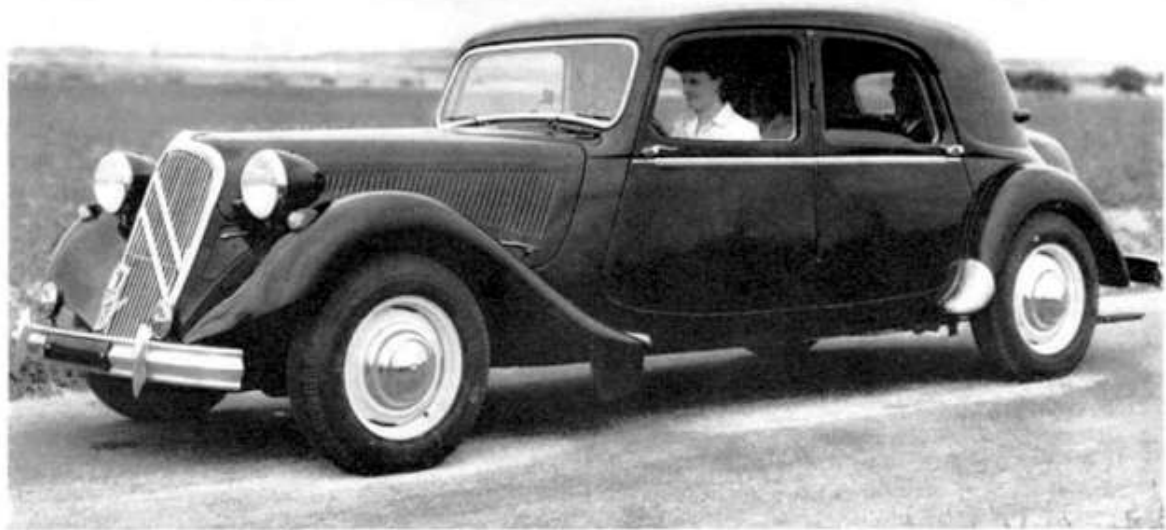
*Bandit's Delight—or the 8/9-seater version of the Quinze Chevaux as it appeared in 1939. The painted radiator shell and model designation covering the starting-handle hole are distinguishing features of French-built cars. Also in evidence are the 'Pilote' wheels, while multiple bonnet louvres were to spread to the four-cylinder tractions after the war.* (Photo: S. A. André Citroën)



mechanic, the long-stroke engine was beginning to feel a trifle rustic: even *The Motor* interrupted its rhapsodies on the *traction's* cornering powers to complain that the mechanical elements 'did not come up to the highest modern standards of smoothness and silence'. The '15' was getting too unwieldy for increasingly congested roads, while an 18 m.p.g. thirst sorted ill with expensive petrol. Even if the customers had been given rear-opening boots as long ago as 1936, the luggage accommodation was parsimonious. Nothing was done to rectify this until late in 1952, when the company added a hinged steel pressing at the rear. At the same time wipers became standard equipment in France, and synthetic leather panels relieved the drab cloth of the *traction's* interior. Slough re-introduced the '11 Normale' at £1,153.

At the 1953 Salon both the '11 Normale' and the '15' were offered with seven-seater bodywork for the first time since the war. They could also be had in grey and blue, but more important developments were on the horizon, and for its last two seasons the '15' was destined to serve as a guinea-pig for Citroën's new hydro-pneumatic suspension. As yet this was applied to the rear only, the arrangements at the front being unaltered beyond a lengthening of the torsion bars. On the '15H', the rear wheels were mounted on trailing arms connected to their pivot points by a torsion bar which served as an anti-roll device. A short member projected downwards from each arm, carrying rubber bump stops, and housing the end of a piston rod; this formed the beginning of the suspension proper. Lockheed fluid passed through restrictors, and was then compressed by the piston in a cylinder in the first part of a steel sphere. The remainder of this sphere was filled with gas, the actual springing medium, and separated from the fluid by a diaphragm. Fluid was fed by a pump, belt-driven from the front of the engine, to an 'energy accumulator', whence it was metered to a regulator which adjusted the height of the car from the ground. The result was a self-levelling system which was unaffected either by road surfaces—five-inch obstacles could be surmounted without discomfort at 55-60 m.p.h.—or by excessive loading, and could be used to jack up the rear of the car. To prevent the back end from sinking when the engine was switched off, there was a control on the dash which sealed the system under





*Final Configuration, or the 15-Six as it appeared in 1953. As yet black with lemon-coloured wheels was compulsory in France, but plain discs had been standard equipment since 1946, and the built-out boot and wipers on the rear quarters are symptomatic of the last face-lift.* (Photo: S. A. André Citroën)

pressure, but in practice the suspension would rise to working height in less time than it took the engine to warm up. From mid-1954 new six-cylinder Citroëns could be delivered with hydropneumatic for an increment of only £141 in England.

The 1955 Salon saw the even more remarkable DS19 with hydropneumatics all round, not to mention power-assisted brakes, steering clutch, and gear-change, and a truly modern shape. Under the bonnet, of course, there was still the old 1,911 c.c. long-stroke unit, but the 'DS' supplanted the '15' there and then, as well as ousting the 11CV range from the production lines at Slough. In France, however, the traditional *traction* received a new lease of life with a more powerful 60 b.h.p. unit in the 'D' series, and it was not until July 1957 that the 1934 theme gave way to a simplified derivative of the 'Déesse', the ID19. Total production of the four-cylinder *tractions* amounted to a formidable 708,339, while the 15CV accounted for another 50,518. A short-stroke engine was at long last introduced in 1965, but the 1966 season was over before this was fitted to the 'ID', and even in 1967 the old long-stroke motor is still standard equipment in Citroën's H-type light vans.

## THE CITROËN IN COMPETITION

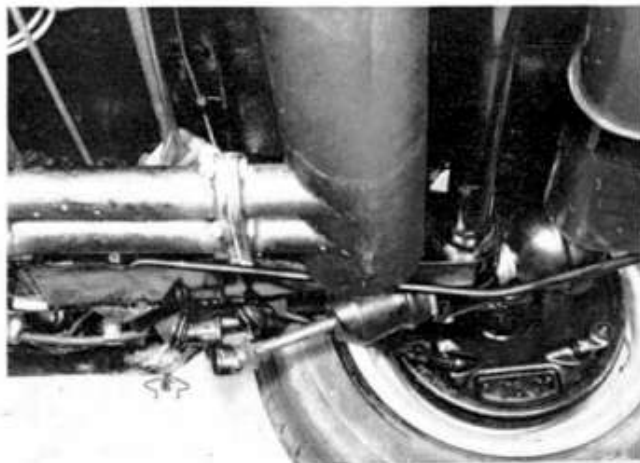
Though MM. Deutsch and Bonnet, of D. B.-Panhard fame, built up their reputation with *traction* derivatives, the Citroën's rally potential was not to be realised until late in its career, and the car's greatest exploit was surely François Lecot's marathon drive in 1935-6. This 58-year-old Frenchman set himself the task of covering 400,000 kilometres (rather under a quarter of a million miles) in a twelvemonth, and he achieved this objective in daily spells of nineteen hours. The adventure called for the services of eight A.C.F. observers working in relays. M. Lecot took in the Monte Carlo Rally (without signal success) and on 22nd July 1936 the faithful '11 *Legère*' ground to a halt, having averaged 40 m.p.h. Petrol consumption worked out at 22-25 m.p.g., and tyres lasted from 12,500 to 18,000 miles. (Tyre-rotation, incidentally, was never wise policy on a Citroën, largely due to the great weight of the wheels, while imbalance

was accentuated when Michelin 'X's became available in later years).

After the War the advent of twin-carburettor conversions and proprietary four-speed gearboxes gave the cars a brisker performance, and an '11 *Legère*' won the 2-litre category of the 1947 Alpine Rally. Gautruche followed this up with *Coupes des Alpes* in 1948 and 1949, as well as recording the breed's best performance in the 'Monte'—fourth in general classification in 1951. The '15' also took its share of the laurels: the Dutchman Karel Ton won the 1951 Tulip Rally and was sixth in 1952, in which year he also headed the 3-litre class. Seibert and Bolz won the 1953 'Sestrière' on a second-hand example bought in Paris only the week before.

Cooper, of course, made use of the four-speed E.R.S.A.—Citroën gearbox in their racing cars from 1955 onwards, while some ingenious Citroën derivatives were raced in various parts of the world, notably Stanley Reed's rear-engined device which ran in South Africa during 1952: this was basically an 11CV turned back to front, with locked steering

*Linking yesterday and tomorrow: a close-up of the rear suspension arrangements on the 6-H model introduced during 1954.* (Photo: S. A. André Citroën)





Like Lord Nuffield, André Citroën did not live to see the vindication of a revolutionary suspension system on his cars, dying in the summer of 1935. Here he is seen between Lecot and Penaud at the completion of a successful proving run into Eastern Europe.

(Photo: S. A. André Citroën)

shorts were grouped cunningly round the terminals'. It took ten minutes to top up the battery.

But for all its faults, the Citroën remains an outstanding car. In its day it was probably the fastest means of getting from A to B, especially if the journey embraced rain, *pavé*, and tight corners. What is more important, it was not an expensive piece of machinery—around £250 with full *de luxe* equipment in England, and correspondingly less in France, where it was backed by nationwide service. Its rust-proneness has been liberally stressed, and one hears of many instances of *tractions* sagging amidships, but it should be remembered that the 11CV and its relatives had a longer career than any other unitary-construction design in the history of the automobile, and that quite a few survivors had attained their majority when the last of their sisters were new. And there can be few other classic designs which enjoyed a two-stage reputation—as *le dernier cri* in 1935, and as fine old French traditional in 1955.

The Author acknowledges his indebtedness to Mr Alan Goodyear, Mr Brian R. Hall, and Mr N. Barrington Needham, of Citroën Cars Ltd., for their help in the preparation of this Profile.

#### SPECIFICATION:

##### '11 LEGERE' AND '11 NORMALE' 1935-1957

**Designations:** '11 Légère' sold in England as 'Sports Twelve', 1935-37; as 'Light 15', 1938-55. '11 Normale' sold in England as 'Super Modern 15', 1935-37, and 'Big 15', 1938-40 and 1953-55.

**Chassis:** Full unitary construction, welded-up steel structure to which body panels are welded. Engine and front suspension bolted to frontal horns.

**Cylinders:** Four-in-line, monobloc, detachable head, detachable cylinder barrels, wet liners, 3-bearing counterbalanced crankshaft.

and Auto-Union type torsion-bar front springing. Of the sports 'specials', the Citroën-based D.B. had achieved a four-speed Cotal gearbox and swing-axle rear suspension by 1949, though thereafter the company concentrated on Panhard-engined machinery, the f.w.d. Georges-Irat with 11CV engine and front suspension by rubber-in-torsion was killed by the War, and the elegant Rosengart 'Supertraction' which used the same mechanical components, was not very sporting.

#### MECHANIC'S NIGHTMARE?

Opinions differ on the *traction's* suitability for home maintenance, and later cars certainly concealed their brake master cylinders under cover plates on the bulkhead, thus obviating a complex process of dismantling. With practice, it was possible also to have the engine-gearbox unit out and on the bench in one-and-a-half hours, starting from scratch. A high wing line rendered it desirable to remove the front wings for most serious jobs, and even routine servicing could be a chore. The drive shafts demanded servicing at 600-mile intervals, and this ritual involved sixty strokes of the gun to four nipples, the same treatment being needed for four gear-change ball-joints, the fan and dynamo shafts, the fan spindle, the water pump spindle, and the clutch withdrawal ball-race. No wonder some garages and owners became slack in their attentions! The electricians were an entertainment in their own right: as one enthusiastic Citroën owner put it; 'the battery lived in the hottest place an ingenious auto-electrician could find. Potential

Monsieur Lecot's Marathon. François Lecot (centre) takes time out for a publicity shot on his 400,000 kilometre stint, 1935.

(Photo: S. A. André Citroën)





THE 1955 CITROËN 15CV TYPE 6-H SALOON  
built by S.A. André Citroën, Paris, France. Owner:  
Anthony Tringham, Esquire.



CITROËN





Rally success reached the traction in the evening of its life. The secondhand 15CV of Seibert/Bolz on its way to winning the 1953 Sestrière event. (Photo: S. A. André Citroën)



End of the Road: the last of the old tractions, an 11D familiale, makes its laureate way off the assembly line, July 1957. Appropriately enough, it is painted in the now-classic black, contrasting with the white of the already-established 'Déesse' shape astern. (Photo: S. A. André Citroën)

**Valves:** Pushrod o.h.v., camshaft driven by roller chain; double valve springs (1939).

**Bore and Stroke:** 78 x 100 mm.

**Capacity:** 1,911 c.c.

**Horsepower:** French puissance fiscale, 11CV. R.A.C. Rating, 15-08. Output (standard pre-war types), 46 b.h.p. at 3,800 r.p.m.; (post-war types) 56 b.h.p. at 4,250 r.p.m. (11D, 1955) 60 b.h.p. (1953).

**Pistons:** four-ring alloy type.

**Lubrication:** Full pressure by submerged gear-type pump.

**Cooling System:** Pump and belt-driven fan.

**Carburation:** Solex horizontal (down draught, 1939).

**Fuel System:** Camshaft-driven pump from rear tank. Capacity, 8½ gallons (1935); 9 gallons (1937); 10 gallons (1950); 11 gallons (1953).

**Gearbox:** three-speed and reverse, dashboard change. Synchromesh on 2nd and top. Ratios 4-3, 7-3, and 13-1 to 1.

**Clutch:** Single dry plate.

**Transmission:** Spiral bevel by universally-jointed shafts to front wheels.

**Ignition, Lighting and Starting:** Six-volt coil (12-volt on all English models except 11 Legère Popular 1939-40).

**Brakes:** Foot, hydraulic, on four wheels; hand, mechanical on rear wheels.

**Suspension:** Front, independent torsion-bar. Rear, dead axle, torsion bars.

**Steering:** Worm and roller (1935); rack and pinion (June 1936).

*Presidential Bouche. In its last years the Quinze was selected by President Coty as his carriage of State, and this Chapron-bodied 6H convertible saloon was delivered late in 1955. It was used by H.M. the Queen and the Duke of Edinburgh on their State Visit to France in 1957. (Photo: S. A. André Citroën)*



**Wheels:** Disc detachable (1935-36 all types, French 1946 on, English 1952 on). Pressed-steel perforated disc used on some 1937-38 models and also on English '11 Legère', 1946-52). Michelin 'Pilote' perforated disc wheels standard on all 1939-40 models.

**Tyres:** Michelin; (11 Legère) 150 x 400 (1935); 165 x 400 (1939). (11 Normale) 160 x 400 (1935); 165 x 400 or 185 x 400 (1939); 185 x 400 (1946).

**Dimensions:** (11 Legère) Wheelbase 9 ft. 6½ in.; track 4 ft. 4½ in. (1935), 4 ft. 6 in. (1951); overall length 14 ft. 0 in. Overall width 5 ft. 5½ in.; overall height 4 ft. 11½ in.

(11 Normale) Wheelbase 10 ft. 1½ in. (6-seater); 10 ft. 9 in. (8-seater); track 4 ft. 8 in. (1935); 4 ft. 10½ in. (1953); overall length (6-seater) 14 ft. 9½ in.; (8-seater) 15 ft. 5½ in.; overall width 5 ft. 10½ in. Overall height (6-seater) 5 ft. 0½ in. (8-seater) 5 ft. 1½ in.

**Weights:** (standard English models, 1939). 11 Legère saloon, 20½ cwt. 11 Normale 6-seater, 22 cwt.; 11 Normale 8-seater, 23½ cwt.

**Performance:** (Standard 11 Legère, 1952): Speeds: top 75 m.p.h.; 2nd, 50 m.p.h.; 1st, 26 m.p.h. Acceleration, 0-30 m.p.h., 5-7 sec; 0-50 m.p.h., 14-1 sec. Fuel consumption, 22-25 m.p.g. (standard 11 Normale, 1953): Speeds, top 70 m.p.h.; 2nd 52 m.p.h.; 1st, 32 m.p.h. Acceleration, 0-30 m.p.h., 7-3 sec.; 0-50 m.p.h. 17-9 sec. Fuel consumption 22-26 m.p.g.

**Prices:** (U.K.) 11 Legère saloon, £285 (1935), £248 (1937); £620 (1946); £972 (1955).

11 Normale, 6-seater, £315 (1935); £278 (1937); £1,049 (1955). The are representative figures only.

**Notes:** 7CV ('Super Modern 12' in England) made 1935-40, specifications generally similar to '11 Legère' apart from 72 x 100 mm. (1,628 c.c.) engine. 11UA (sold in England as 'Family 15', 1937-38), used '11 Legère' engine in a conventional rear-drive chassis with mechanical brakes.

#### 15CV 6-CYLINDER

Specification as above except for following details:

**Cylinders:** Six-in-line, monobloc, detachable head, detachable cylinder barrels, wet liners, 4-bearing counterbalanced crankshaft.

**Carburettor:** Solex twin-choke down draught.

**Fuel System:** Mechanical pump from 15-gallon rear tank

**Gearbox:** Three-speed and reverse, dashboard change, synchromesh on 2nd and top. Ratios, 3-875, 5-62, and 13-24 to 1.

**Suspension:** As for 11CV, but optional hydropneumatic at rear (1954).

**Steering:** Rack and pinion.

**Wheels:** Michelin 'Pilote' perforated disc (1939); steel disc (1946).

**Tyres:** Michelin, 185 x 400.

**Dimensions:** Wheelbase 10 ft. 1½ in. Track 4 ft. 10½ in. Overall length 15 ft. 11 in. Overall width 5 ft. 10½ in. Overall height 5 ft. 1½ in.

**Weight:** 26 cwt.

**Performance:** (Standard model, 1953). Speeds, top 80 m.p.h.; 2nd, 58 m.p.h.; 1st, 26 m.p.h. Acceleration, 0-30 m.p.h., 5-4 sec; 0-50 m.p.h., 12-5 sec. Fuel consumption, 17-20 m.p.g.

**Prices:** (U.K.) £370 (1940); £1,087 (1949); £1,333 (1955).