



**No car shouted advancement through engineering quite like this Citroën. As fascinating as it remains infuriating, the DS is not everybody's ideal classic. But it's certainly one that grows on you...**

**C**ar makers frequently harp on about how their latest model moves the goal posts – how it's a game changer that'll go down in history as an all-time great. But of course very few cars are ever really all that memorable – and certainly not many family cars. But occasionally something comes along that really does change the automotive landscape – something that pushes the boundaries. Such a car was the Citroën DS, launched well over half a century ago.

Even now the car looks sensational, is technically advanced and amazingly aerodynamic – yet it debuted in 1955. However, such advanced engineering has also proved to be the DS's downfall; while there are many who have seen the light, there are some who assume that such complexity must mean poor reliability is inherent, even though the DS is dependable. Indeed, the DS can – and does – double as reliable, safe family transport, fully capable of holding its own in city or motorway traffic. Almost 60 years on it's a classic that still astounds but also infuriates at the same time – but what do you expect from a car that was decades ahead of its time?

### History

When the DS was unveiled at the 1955 Paris salon, there were gasps of amazement all round – and rightly so. Looking like something that had

### FAST FACTS

<b>Best model</b>	<b>DS23 EFI</b>
<b>Worst model</b>	<b>ID19</b>
<b>Budget buy</b>	<b>DS19</b>
<b>OK for unleaded?</b>	<b>Additive needed – officially...</b>
<b>Will it fit your garage?</b>	<b>L4870 x W1800mm</b>
<b>Spares situation</b>	<b>Good</b>
<b>DIY ease?</b>	<b>Surprisingly so</b>
<b>Club support</b>	<b>Very good</b>
<b>Appreciating asset?</b>	<b>Yes, especially convertibles</b>
<b>Good buy or good-bye?</b>	<b>For those who appreciate engineering</b>

### PROS & CONS

- + Stylish, comfortable, spacious, practical, generally reliable, easy to maintain
- Complicated, convertibles are massively costly to buy and restore, engines unrefined
- £ £1,000-£20,000 (saloons and estates)

come from outer space, the DS was revolutionary in every sense; suddenly Citroën's Traction Avant seemed very old-hat, even though that too had moved the goal posts when it was launched two decades earlier.

But while the new arrival featured jaw-dropping styling and was technically advanced in many ways, the three-bearing 1911cc four-cylinder engine was developed from the Light 15 Traction Avant unit, so it wasn't the last word in technology. The development continued though, and by June 1956 the DS19 was being built at Citroën's Slough factory while from 1957 there was an ID19 option. This was essentially a DS19 but without the hydraulic steering, brakes or gearbox, while the engine was also detuned and the interior was less luxurious.

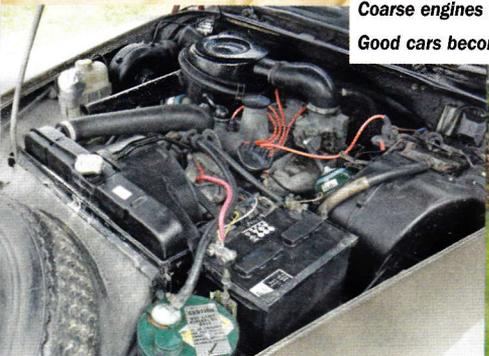
From 1958 there was a DS Prestige, with a partition between the front and rear seats. In the same year, an ID Break (estate) was displayed at the Paris motor show along with a coachbuilt cabriolet by Henri Chapron. During the next year, one of the earliest MPVs hit the scene; the seven-seater Safari. In 1961, Chapron's ID19 and DS19 Cabriolet were added to the Citroën catalogue, while the DS19 got a revised dashboard.

In 1962 all cars received a restyled nose, while the ID19 Cabriolet got the DS19's engine and power steering became optional on the ID. There was a manual gearbox option for the DS from 1963 while in 1964 the Pallas, a luxury version of the DS19, was introduced. In 1965 a new five-bearing engine was introduced with a choice of two displacements; 1985cc or 2175cc. These were fitted in the DS19a and ID19 Break, and in the DS21 and ID21 Break respectively. The ID19 continued for one further year with the 1911cc engine.

The range-topping DS21 arrived in 1966, with a 2175cc engine; in the same year, production at Citroën's Slough factory drew to a close. From the following year the DS got an even more radical nose; the major front-end restyle brought twin headlamps. In 1968 the DS20 superseded the



Cockpit quirky, dear to renovate  
Coarse engines but are durable  
Good cars becoming expensive



DS19, while the ID20 appeared as a model separate from the ID19 – at the same time, the DS21 and ID21 Break got a power boost to 115bhp.

A 139bhp fuel-injected version of the DS21 arrived in 1969, the DS21 EFI here, and the DS21 IE everywhere else. At the other end of the scale was the Dspecial (an updated ID19) while the Dsuper was also launched, based on the ID20. At this point, all cars were fitted with a revised fascia.

The model's development continued apace with a five-speed gearbox becoming optional on the DS21, DS21IE and Dsuper from 1970. Then, in the following year, all cars got the option of headlamps which turned with the front wheels, but only on cars with power-assisted steering, while the DS21 got the option of air-con and automatic transmission. A successor to the DS21 appeared in 1973, in the shape of the DS23, with a 2347cc engine similar to the one that powered the CX on its launch. In range-topping fuel-injected form, the DS became the DS23 EFI, with 141bhp on tap. The D Super5 was also seen for the first time – this was a D Super but with a five-speed gearbox. Then there was a DSuper5, with 2175cc engine and five-speed gearbox as standard; the standard DSuper featured a 1985cc unit with a four-speed gearbox, although an extra cog was optional. The final DSs were built in 1975, with the arrival of the CX range.

## Driving

Driving a fully-specified DS is something to savour, because it's quite unlike anything else. Those high-tech hydraulics create a driving experience that needs some acclimatisation to get the best from this hyper sensitive car. For example, the brake pedal is more a button and so needs just

a touch to bring the car to a halt. Indeed, with hydraulic gear selection, a foot-operated parking brake, single-spoke steering wheel and indicators that don't cancel themselves, get behind the wheel of a DS and it's like learning to drive all over again. It's worth preserving with it though, because the ride is amazingly smooth, the handling is excellent and the controls are all wonderfully light – it's only after driving a DS that you realise just how conservative all other car makers have been for the past six decades.

As you'd expect it's a cruiser more than anything else and the way this Citroen – especially the later five-speed models – lops along still impresses. If the car has one major downer then it's the ancient four cylinder engine taken from the earlier Avant; in this sophisticated saloon it feels coarse and unrefined and only adequately powerful (a 1968 road test had a DS21 clock 60 in a leisurely 16.2 seconds).

"What a remarkable car" is how *Motor* kicked off its 1968 road test of the DS21 Pallas although it added: "One wonders how many customers must have been frightened away to more prosaic machinery after a brief test drive". It further advised that the typical driver would need a hundred miles of driving to acclimatise but warned, "Some may be converted – or put off – for life".

It's a practical car, the DS. That novel and still radical fluid suspension can be raised or lowered at a whim while the estate models are massive and massively versatile but in contrast the car is still a design that would frighten many DIYers away. "There is no jack: you simply set the suspension to high, put the stand under the body sill and let the suspension down again, leaving two wheels dangling in the air. Only Citroen would have thought of that" concluded one road test.

## WHAT TO LOOK FOR

- The outer panels of the DS are cosmetic – it's the main structure that matters. New outer panels can be bolted on easily enough – at a price. The most important parts of the structure are the side rails which run along the car's flanks – the panels against which the doors close. Check them from underneath; any bubbling under the strips and there's corrosion developing, which could mean major repairs.
- Open the boot and see if there's corrosion in the rear wing gutters and boot floor; its leading and trailing edges are both prone to rotting out, but repairs are easy and cheap.
- If you think the main frame may be badly decayed, remove the wings to check. The rear wings are held in place by just one bolt, and once they're removed you can check the bumper mounts, suspension cylinder brackets and the rear section of the inner wings. There's a good chance that at least one of these will have already seen some remedial work, and if it has it's worth asking who has done it as it's quite possible that they haven't been done properly.
- The front wings are rust-prone at their bottom rear corners as well as around the wheelarches. Cars with faired-in headlights also need to be checked just below the lamps – the metal here rusts and it can't be repaired because welding leads to distortion. The glass then doesn't fit, so the only solution is a new wing.
- The rear wings also corrode, mainly along the bottom edges, although badly neglected cars will also have rot at the top of the leading edge. Door bottoms can rust horrendously if allowed to, but the boot lid is pretty durable. So is the bonnet, which is aluminium. At least a saloon's roof won't rust as it's glassfibre, although some export cars featured an aluminium panel, while some Safari and Break roofs are steel.
- Although the four-cylinder engines fitted to the DS and ID aren't refined, they are durable. The best units are the five-bearing ones (1985cc, 2175cc and 2347cc) but the three-bearing 1911cc powerplant is also long-lived. But this smallest unit is also sweeter than the others. A properly serviced engine will last at least 150,000 miles before any TLC is required – it's common for double this mileage to be racked up before the head has to come off.
- Even when the engine does need maintenance it's usually restricted to just the top end. Because bottom end work is rarely required it's normal for the engine to be worked on in situ. But if major work is needed, it's usually more cost-effective to buy a used unit for around £250 – rebuilding one is closer to £1500.
- Cracks in the alloy cylinder head between the combustion chambers are common, as are incorrectly fitted oil filters. The former problem occurs when the correct level of anti-freeze hasn't been maintained; the latter leads to the engine seizing if the triangle symbol on the engine casing isn't aligned with the matching symbol on the sump, because the oil flow will be cut. Another problem is cross-threaded spark plugs, because the plug holes aren't particularly easy to get to. The key is to use the correct Citroen two-piece plug spanner.



**Inset:** Looks have always been an acquired taste. **Main:** When launched the fwd DS was unlike any other car in terms of ride and roadholding

## Prices

You can buy a running but scruffy, reliable ID or DS for as little as £1000 or pay six figures for a top car! The best range-toppers will be more than £20,000 but a genuine Henri Chapron Cabriolet, needing extensive restoration, is likely to cost £50,000 or more – an immaculate, fully restored car will fetch well over £100,000...

A really good Safari costs less than an equivalent condition saloon but they are getting very rare, and prices have started to rise over the last few years. Most cars are in the £5000 to £10,000 range, but an example with an awful chassis can look immaculate with a good set of panels and a decent interior – and it may be sold for £10,000 when it's worth less than half that, so beware.

## Improvements

While brake and suspension upgrades are par for the course with the DS's more mainstream rivals, they're unnecessary here. Indeed, upgrades of any kind are generally unnecessary – and in many cases undesirable because there are so many DS purists out there. The most worthwhile improve-

ment is the fitment of an electronic ignition system, the 123 set-up being the most popular.

The fitment of a fit-and-forget stainless steel exhaust is also worthwhile, but the most useful thing you can do to improve a DS is to fit modern Continental tyres in place of the Michelin units still fitted to many cars. Grip is improved and so is handling – some purists don't like it, but they make the DS much safer. So too do H4 bulbs, but you'll need to replace the housing while you're at it. However, this more modern housing looks noticeably different from the original, which is why many owners just put up with rubbish headlights.



## WHAT TO LOOK FOR

- If the timing chain is getting noisy, it's an engine out job to fix according to Citroen. However, there is a procedure for cutting a hole in the inner bulkhead to access the timing chain cover before making up a new inner bulkhead cover plate, to be fixed in place with self-tapping screws. Few people approve of this method since it affects the originality of the cars.
- The gearchange can be complex or straightforward, depending on whether it's hydraulic or conventional – the former (a semi-auto) is complicated. There's a clutch operating cylinder, centrifugal regulator, clutch re-engagement control, gear brain and gear selection cylinders – any of which can stop working. The system isn't inherently unreliable, but it does need to be set up properly in the first place.
- If there's one aspect of a DS or ID that's sure to strike fear into anyone who might be thinking of buying a DS, it's the hydropneumatic systems. But those fears are misplaced, because as long as it's properly maintained it'll remain trouble-free.
- The most common problem is corroded pipework, and as the fluid is at 2400psi, any weakness will soon become apparent. Leaks are most likely by the nearside rear wheelarch. The only solution is a new set of pipes at around £250. The spheres which provide the springing and damping can also give problems. They may need recharging, or if they won't hold pressure replacing.
- Pre-1966 cars used a red fluid called LHS or LHS2, (Liquide Hydraulique Synthetique) which is corrosive and holds moisture. If not changed regularly and the filter cleaned, or the car is not used regularly, this can eat away the pipes internally, and the fluid can also crystallise. This was changed to a mineral hydraulic green fluid called LHM (Liquide Hydraulique Minerale), but if you want to convert an early car to LHM then every unit and all the hundreds of seals must be changed, as they are not compatible.
- Next check the accumulator that keeps the suspension fluid under pressure, by listening for clicking from under the bonnet. If the accumulator sphere is on its way out, the hydraulic pump will be working continuously. This sphere is also the reserve pressure unit that provides braking power in the event of engine failure. It is essential to renew or recharge these every four years.
- The brakes work very well, but their inaccessibility leads to corners being cut so they're not running at maximum efficiency. Changing the inboard front discs can take 12 hours and even swapping the brake pads takes up to two hours. Pad quality is critical.

## THREE OF A KIND



### NSU Ro80

Finding anything quirkier than a DS is a tall order, but the Ro80 is a true oddball unlike anything else. Amazingly aerodynamic for its time – even if it looks more staid than the Citroen – the NSU also features a great semi-auto gearbox, excellent handling and a sublime ride. But its rotary engine is fragile which is why you'll struggle to find a good one that's still to original spec.



### Renault 16

If you really must have a quirky French car in your life but the DS is just too common, you could try to find an ultra-rare Renault 16. The first mainstream family hatchback, the front-wheel drive 16 was a true landmark car that's just as usable now, nearly 50 years after its introduction. Later cars are surprisingly well equipped, but finding a 16 of any vintage will prove a challenge.



### Rover P6

The first ever Car of the Year, Rover's P6 was far more advanced than many realise, with a construction much the same as the DS's, the panels are hung onto a stressed monocoque. Inboard rear brakes help the dynamics but make maintenance more of an issue; this is a classic that's safe, strong, great to drive and comfortable – and criminally cheap into the bargain.

## VERDICT

If you're now convinced that you need a DS in your life, bear in mind that cars used as everyday transport normally run best and are the most reliable – those that spend most of their life sitting idle in the garage are usually the ones that break down most and have poor running problems. Also, routine repairs and maintenance are not beyond the abilities of the reasonably handy weekend mechanic. Plus the Citroen Car Club D Section runs courses for members who want to learn how to do all their basic preventative maintenance and servicing.