1967-74 LOTUS ELAN PLUS 2

WORDS JESSE CROSSE
PHOTOGRAPHY TOM WOOD

2+2 body is glassfibre, so it won't rust, but original backbone chassis – treated only with 'an oily rag and red primer' – can rust, crack and twist

Designed as a family-friendly alternative to the Elan roadster, the Plus 2 is a stunning and usable classic – but prices look set to rise

Colin Chapman's original tiny Elan roadster was launched in 1962 and joined in 1967 by the Elan Plus 2, which stayed in production until 1974. The 2+2 had been conceived in 1964 and underwent three years of development. To make room for the rear seats the wheelbase was stretched by 300mm and the track by 180mm. It was aesthetically far more successful than many other plus-twos and a real beauty in its own right. It followed the basic structure of the original Elan, with a glassfibre body on a backbone chassis powered by the same Lotus-Ford twin-cam engine.

Like the roadster, UK buyers could order it complete or as a nearly finished 'kit-car' to take advantage of a Purchase Tax loophole.

A total of 5200 Plus 2s was produced and today it's a sophisticated, affordable classic – though prices could well soon be moving up.

WHICH ONE/HOW MUCH

The Plus 2 was joined in 1968 by the Plus 2S, only available as a finished car. A big-valve version, the Plus 2S 130, arrived in 1971, followed in 1972 by the five-speed Plus 2S 130/5. Plus 2S equipment levels were better than the original's, with a more luxurious cabin plus fog lamps beneath the front bumper. The 130 had 'failsafe-up' pneumatic headlamps and the fusebox was moved to the dash from above the passenger footwell where it could get wet.

Prices are dictated by condition rather than model. You can buy a project for £3k, while usable cars with MoT start at £6k. Expect to pay £7k-9k for older amateur restorations and £8k-13k for older professional restorations. Outstanding examples can fetch £18k, and concours examples as much as £25k.

IS IT RIGHT FOR YOU?

This is a sophisticated piece of engineering with double-wishbone independent suspension, much like a contemporary racing car. To drive well, the suspension must be properly set-up and the chassis dead straight. The twin-cam engines are robust unless they've been thrashed or poorly maintained.

There's ample room in the front for six-footers, while the rear seats are suitable for children or luggage.



Twin-cam engine is based on a 1498cc Ford unit bored out to 1558cc. You need to change the (classic-friendly) oil at least every 3000 miles

Well-maintained, a Plus 2 offers classic Lotus handling, direct steering and a fabulous induction note, and the quality of the gear shift is among the very best. On a well-sorted example expect running costs of about £400 a year.

BODY AND STRUCTURE

Body and chassis are completely separate, the chassis and powertrain forming a discreet unit. Beware that freshly painted bodies may look better than they really are, says Andy Widnall of Elan restoration specialist Spyder Cars, who warns that bodged repairs may lurk underneath; the only way of telling is to know who painted the car. 'Star crazing in the gel coat will come back unless the damage has been taken out and properly repaired with glassfibre tissue,' adds Widnall.

Internal steel sills behind the glassfibre may have rotted at the jacking points. Check for this by inserting a Phillips screwdriver into the jacking points and gently pushing the internal bush which accepts the jack pin. If there's movement, the steel sill is rotten. A full body overhaul and respray costs around £6k.

Other trouble spots include original bonnet catches, which were crudely mounted on wooden blocks that swell when wet and make opening the bonnet difficult, and headlights that don't open and close properly. These are vacuum-operated via an integral reservoir in the front chassis crossmember and two pods that act as servos. A replacement system upgraded to 'failsafe-up' costs around £300.

The crucial part of the structure is the backbone chassis, originally treated with only 'an oily rag and some red primer', says Widnall. Replacement chassis supplied from the early Eighties onwards are galvanised. Front uprights can fill with water and rot, as can the lip along the bottom of the backbone and rear spring mounts. Cracks can develop at the differential mounting points, which are sometimes twisted, causing the left front wheel to lose caster angle and misaligning the rear right toe settings. Wayward caster will make the steering straighten more readily one way than the other, while rear toe problems make the steering turn-in lighter in one direction than the other. Spyder fits adjustable lower rear wishbones at £360 and a replacement Lotus chassis costs from £3800 fitted.

BRIGHTWORK AND TRIM

In Lotus tradition the shiny bits were drawn from various parts bins, but most don't pose too many problems today. The front bumpers are Ford Anglia and easy to find and re-chrome. Rear bumpers were fabricated from two Riley Elf bumpers cut and welded. These are available for £380 fitted.





Original seats are vinyl with Aerotex centre panels. A full cabin retrim will set you back about £2500



Pop-up headlights can be upgraded to 'failsafe-up' if they aren't already



1968 LOTUS ELAN PLUS 2

Engine 1558cc, in-line four-cylinder, dohc, two Weber 40 DCOE carburettors **Power and torque** 118bhp @ 6250rpm: 108lb ft @ 4000rpm **Transmission** Four-speed manual, rear wheel-drive **Steering** Rack-and-pinion **Suspension** Front: independent, wishbones, coil-over dampers. Rear: independent, wishbones, Chapman struts **Brakes** Discs front and rear **Weight** 946kg (2086lb) **Performance** Top speed: 120mph; 0-60mph: 7.9sec **Fuel consumption** 26mpg **Length** 4280mm **Width** 1676mm

The windscreen of the 130S was bonded rather than fitted with the rubber seal used on earlier cars. It's trimmed with a chromed plastic cover that isn't repairable, but Spyder can replace these with a rubber seal and a chromed metal finisher for £200.

INTERIOR

The dash is walnut veneer and standard seats are vinyl with Aerotex centre panels. This is the same material used in the Ford Escort MkI Twin Cam, Mexico and RS1600 and is available at around £36 a metre. Door cards are also available and a full re-trim in leather costs around £2500.

The gauges are Smiths and usually still work, except for an ambient temperature gauge which often doesn't; it can't be repaired and restorers usually set it to zero. Electric clocks can fail, but Smiths provides replacements.

ENGINE

The twin-cam is based on the 1498cc Ford pre-crossflow engine bored out to 1558cc and fitted with Weber, Dell'Orto or Stromberg carburettors. The more powerful 130 engines originally had the words 'Big Valve' cast into the camshaft covers, but these are sometimes fitted to standard engines. Big-valve units were fitted with Dell'Orto carburettors while previous engines had Webers or Strombergs.

Engines leak a little oil but the effect should be limited to dirty casings rather than drips on the floor. Oil pressure should sit at around 40psi.

The water pump is inside the front engine cover; replacements are cheap but changing one means removing the engine and gearbox and stripping the engine. Telltale signs are water stains on the front case below the pulley; unscrupulous sellers have been known to remove the pressure plate and spring from the radiator cap to prevent the system pressurising.

The twin-cam is a highly stressed engine and should be lubricated with classic rather than modern oil and changed at least every 3000 miles, advises Widnall. The distributor is mounted beneath the inlet manifolds and very difficult to get at, so an electronic ignition system is desirable.

The original cooling system is barely adequate, so an uprated radiator and electric cooling fan are good signs rather than ominous. A full engine rebuild will cost from around £5000 assuming major jobs are not needed such as re-sleeving the cylinder block or sourcing a new crankshaft.

TRANSMISSION

The Ford 'Bullet' gearbox has a precise shift, the gearlever acting directly on to the three-rail selector mechanism. Bearings, layshaft and layshaft needle rollers can wear, though synchronisers are quite robust. Budget around £300 for a rebuild. The 130/5 had a five-speed Lotus gearbox based on Austin Maxi internals. Parts for these are rare and a rebuild can cost up to £1500.

The rear axle is the powertrain's Achilles' heel. The Ford differentials are plentiful, but the casings they are fitted to and the output flanges are bespoke Lotus items. Driveshafts are short and attached inboard and outboard by troublesome rubber doughnuts. If one fails at speed the flailing driveshaft can take out a brake pipe or catch the handbrake mechanism, locking the rear wheels. A common fix is to replace them with universal couplings, but this removes any compliance and can result in broken output flanges or shafts.

SUSPENSION

The front suspension has double wishbones with coil-over dampers, mirrored by a similar arrangement with Chapman struts (similar to a MacPherson strut) at the rear. The condition of the dampers is especially important if the



Transforming the two-seat Elan into a 2+2 stretched its length by 300mm and track by 180mm, but the changes didn't destroy the car's looks

SO YOU'RE LOOKING FOR AN ELAN PLUS 2?



1974 PLUS 2 130/5
'The subject of a total restoration including chassis, all mechanicals, bodywork and interior.' £19,950. Paul Matty Sports Cars, Worcs (01527 835 656, www.paulmattysportscars.co.uk)



1969 PLUS 2
'Has had a replacement Spydersport chassis and various associated components.' £8450, UK Sports Cars, Canterbury, Kent (01227 728190, www.uksportscars.com)



1972 PLUS 2S 130
'Finished in Deep Red. Exquisite example in splendid condition throughout.' £16,995, UK Sports Cars, Canterbury, Kent (01227 728190, www.uksportscars.com)

legendary Lotus handling is to be preserved. Replacement rear struts cost £800 fitted and a new pair of adjustable front dampers £300.

The rack-and-pinion steering is very sensitive to suspension set-up, and although a lower than standard ride height looks good it causes bump steer making the car twitchy to drive. A correct set-up should allow room for a 'good fist' between the top of the front tyre and the wheelarch. The steering should be very direct with no free play and if the wheel is moved even a small amount the road wheels should move too. If they don't the culprit is probably the flexible coupling in the steering column, which can be replaced for about £100.

ELECTRICS

Elans are not very watertight and the Lucas electrics are susceptible to damp-related problems. Later S models with the fusebox mounted on the dash are more resilient, but Elans have often been re-wired badly, so a good visual check is essential. The front side lights and rear lights are bespoke but available new at around £180 and £170 each respectively. The headlights are standard Lucas 7in units and easily replaced.

MAKING IT BETTER

Spyder Cars makes a new, improved replacement chassis with adjustable wishbones costing £2900 and has also developed replacement drive shafts for £650. These have an outboard CV joint and a modified inboard rubber doughnut assembly that locates the driveshaft safely even if the rubber fails.

Spyder recommends replacement adjustable dampers and struts that compensate for the Plus 2's slightly soft suspension set-up. An electric fan and high-performance radiator are also desirable, costing around £440 fitted.

Ford Zetec engine conversions from Spyder include a modified Ford five-speed transmission and can deliver up to 180bhp. They cost from £12k for an engine and chassis kit to £35k for a fully rebuilt turn-key car. CC

NEED TO KNOW

I BOUGHT ONE



Photographer Anthony Bowater bought the 1968 Plus 2 featured here as a basket case in 1992: 'It was a barn-find with a seized engine and a very bad interior. The previous owner had installed shagpile carpet which had become home to a few thousand insects.'

Bowater restored the car himself using a new Lotus chassis. Getting down to work he discovered a few unexpected horrors such as disintegrated steel strengtheners in the sills.

He likes the car's looks, handling and spacious front cockpit, but says the rear seats are too small for adults. He's tackled some long journeys, including the Nürburgring, and used the car for track days.

He modified the engine with a big-valve cylinderhead, uprated camshafts and high-compression pistons, and the car produced 145bhp at the flywheel in dyno tests. Wanting closer gear ratios for track work, he also rebuilt the gearbox.

Well looked after, the Elan can be quite easy on the wallet, says Bowater: 'Parts are relatively inexpensive, but it's vital to keep on top of maintenance.'

TOP FIVE ESSENTIAL CHECKS

- Chassis rot
- Water pump leaks
- Poor paint and body condition
- Bodged electrics
- Worn rear driveshafts

WHO CAN HELP?

Clubs
Club Lotus (01362 694459 / 691144, www.clublotus.co.uk)
Lotus Drivers Club (www.lotusdriversclub.org.uk)

Specialist
Spyder Cars (01733 203986, www.spydercars.co.uk)

Books
Lotus Elan 1962-1974 by RM Clarke. Brooklands, ISBN-10: 1855205513, £18.95 (Amazon)
Lotus Elan: A Restoration Guide by Gordon Lund, Brooklands, ISBN-10: 1855205963, £14.95 (Amazon)