

### 1978 LOTUS ESPRIT S2

# **Engine**

Lotus 907 1973 cc four-cylinder in-line, 16-valve DOHC, two Dell'Orto carburettors. 95.2/69.2mm Bore/Stroke 9.5:1 compression 5 main bearings SU Electrical fuel pump Power and Torque 160bhp @ 6200rpm 140lb ft @ 4900rpm

# Body/Chassis

Glassfibre-reinforced plastic body with steel backbone chassis. Passenger compartment encapsulated in a 'safety-cell structure'.

## **Transmission**

Five-speed manual unit. Synchromesh on all forward gears; fifth gear is overdrive, Clutch: 8.5in diaphragm spring, hydraulically operated. Rear-wheel drive

#### Brakes

9.7in discs front 10.6in inboard discs rear Dual braking system, split front/rear circuits

### Steering

Rack-and-pinion
Castor: 3 to 3.5 degrees
Kingpin: 9 degrees.
Suspension

Front: Independent unequal length wishbones and coil springs.

Telescopic shock absorbers. Anti-roll bar. Camber 0 to 0.5 degrees, 3 to 5mm toe in Rear: independent diagonal trailing arms and lateral link with fixed-length driveshaft, coil springs, telescopic shock absorbers. Camber 0 to 0.5 degrees, 8 to 10mm toe in.

## Wheels & Tyres

Front: 7J x 14 Rear: 7.5J x 14 Goodyear Grand Prix Front: 195/60 HR14 Rear: 205/70 HR14

Pressure: 18psi front, 27psi rear, 30psi spare

# Dimensions

weight:2248lb (1022kg) height: 111cm width: 186cm length: 419cm wheelbase: 244cm

Front track: 151.13cm Rear track: 153.67cm clearance: 15.24cm Boot capacity: 7.0 cu.ft.

### **Performance**

Top speed: 124mph 0-62mph: 8.6 sec Fuel Consumption: 26mpg.
Tank capacity: 15 gallons
Range: 450 miles
Cost new
£12,000

On 27 July 1978, just two days before the annual factory holiday shutdown, Lotus decided to issue a press release detailing S2 modifications. That press release, however, was embargoed until '001 hours 16 August 1978' — a cunning move, as it meant that journalists could not get through to ask awkward questions, unless they called an unlisted direct line. Externally, the sharp-edged lines were much the same as before, but some useful modifications had taken place.

The front spoiler dropped the blade principle and wrapped around the under-bumper area instead. That was the reason why the company quoted the best original Esprit aerodynamic Cd factor on record: 0.335. The top speed claim remained at 138mph, but the most noticeable driving change was cross-wind stability — enhanced by the integrated front spoiler.

More 'air management' had been applied to the engine bay. A set of 'ears' sprouted around the side rear windows. They collected the air-stream for diversion to the engine induction. The battery was moved from its S1 cabin location into 'the floor of the boot'.

Aside from the aerodynamic changes, the most striking external alterations came from the fitment of Speedline alloy wheels. The new wheels were designed by Lotus at the personal behest of Colin Chapman. Other external changes included the use of black chip-resistant paint treatment to the spoiler, sills and rear valance. Remote control door mirrors where also introduced.

From the rear, a most notable alteration was the incorporation of ridged Rover 3500 tail lamps, which encompassed high-intensity fog warning lamps. Major Interior updates included, new black & white dials, oil pressure, battery volt, water temperature and fuel tank gauges. Switchgear was updated to include individual graphics, illuminated via fibre optics.

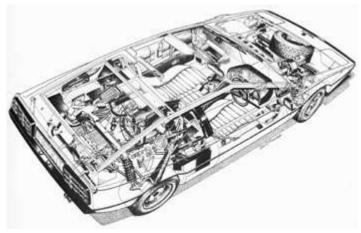
Electric windows switches moved and a digital clock appeared. The seats became 2in wider, access to the engine bay was considerably improved. The engine cover was re-designed, with a Britool tool kit, wheel brace and jack on top, and there was also an access hatch for oil and water checks towards the rear of the cover.





The S2 also had a incorporate the air-intake system for the carburettors, whilst hot air from the engine bay was extracted thermally to exit via the right-hand external 'ear'. The S2 was primarily a machine of greater creature comfort, rather than of improved performance. Made between 1978 and 1981, 1,061 S2s rolled of the production line (only 33 during 1980-81).





#### **Lotus Press Release**

Lotus Esprit S2 — the exclusive mid engine, two seater high performance sports car, hand built for discerning customers all over the world.

Body and interior styling has been influenced by one of Europe's leading designers — Giugiaro. Manufacture utilises the very latest technology in glass fibre reinforced plastic and incorporates many safety features.

Powered by the highly successful 907, 16 valve, twin overhead camshaft aluminium engine, the Esprit's performance is what everyone expects from Lotus — outstanding.

Lotus advanced engineering expertise makes cars more practical, more efficient and therefore more fitting for their purpose. Refinements incorporated in the S2 are numerous. Naturally, the Esprit virtues for impeccable driving comfort are retained but there are improvements which only continual development can create. For instance, the wrapround spoiler, for increased aerodynamic efficiency.

Alloy wheels to Lotus design — with hub offsets to increase the Esprit's track by an inch, adding even more stability to perhaps the most famous Lotus asset — road holding. Vertical air intakes — rear to the side windows — provide improved ventilation to both the rear screen; engine bay and inlet manifold — improved interior, seats, instrumentation, plus built-in high intensity fog lamps in the new tail lights — all help to make driving the Esprit a pleasure.

The Esprit S2, can be described very simply — a rare thoroughbred and one of the most beautiful cars in the world.