

bulkhead and damnably inaccessible in consequence. In the case of the Renault engine, however, the belts were at the other end, with the object of driving the fan, for the radiator was in front of the engine in its original position. In turning the unit round for its mid-engined location, the ancillaries were brought to the rear, where they were perfectly accessible for adjustment. No fan drive was required, for the radiator was remotely mounted at the front of the car, with its own electric fan.

As in the Elan, the Europa had a steel backbone chassis and a glass-fibre body. The chassis was simpler than that of the front-engined model, for there was no propeller shaft passing through the central backbone, the engine, gearbox and final drive being in one unit. The backbone spread out into two members at the rear, to carry the power unit and to accept the suspension loads, the shape being that of a capital 'Y'. At the front, the backbone was welded to a very deep cross-member, making a capital 'T'.

Elan-style running gear

The front suspension resembled that of the Elan, though differing in detail, with upper and lower wishbones and coil springs surrounding telescopic dampers, plus an anti-roll bar. The rack and pinion steering was by courtesy of Triumph Herald. The rear suspension was entirely different from that of the Elan. Fixed-length driveshafts, each with a pair of proprietary Hooke's joints, formed the upper suspension members for lateral location, with plain tubular members quite close to the road underneath, which pivoted on the rear hub housings and beneath the final drive casing. The engine mountings therefore had to be stiffer than those of the Elan, to avoid rear-wheel steering. A detachable cross-beam was bolted across the rear chassis extensions to accept the upper ends of the twin spring-damper units.

The fore and aft location of the rear hubs was by extremely strong box-section members, bolted rigidly to the hub-bearing housings and pivoting on large, chassis-located resilient mountings. These radius arms were angled inwards to follow the 'Y' of the frame. The gearchange linkage went past the gearbox and then made a U-turn to attack the back of it, which ensured a somewhat sloppy action.

The clutch operation was by a long cable that caused the awkwardly-angled pedal to be extremely heavy and jerky in operation; why it was never altered I cannot imagine. The brakes were discs in front and drums behind, with a single master cylinder, but a more sophisticated arrangement became available with two entirely separate servos; it was obligatory in certain foreign countries, and a servo was later standardised with the twin-cam engine. Bolt-on wheels carried 155-13 tyres.

Road-test writers of the period were evidently hypnotised by the mid-engined magic, and even suggested that the car had higher cornering power than the Elan. This was emphatically not true, for a mid-engined car needs broader tyres behind than in front. Later, when more powerful engines were used, the 'standard' tyres only appeared in the catalogue to keep the price down and virtually everybody paid extra for light-alloy wheels, fitted with 175/70-13 front and 185/70-13 rear tyres.

The two-seater coupé body was of glass-fibre construction, with twin fins at the rear that did

little for aerodynamics but curtailed rear visibility to the danger point. Later models had the fins cut down, which improved the rear view to some extent, but not the appearance. Unlike the Elan, the headlamps were fixed, but the phenomenal drag co-efficient figure of 0.29 was claimed.

The S1 version of the Europa had the body built up round the chassis and permanently bonded to it. This meant that quite a small accident could do irreparable damage, for a dented chassis could not be straightened, except by the most immoral methods known only to back-street traders. Mercifully, most of the S1 series went abroad, and as far as I'm concerned they can stay there!

Other endearing features were fixed windows and non-adjustable seats. To avoid suffocation of the occupants, there was a ventilation system which used the front luggage compartment as a plenum chamber; it was not stated how one breathed if the boot was crammed with luggage.

Let's not be too beastly to the Europa, however! By the time that it was officially released for the home market, the S2 model was in production. This was a far less basic vehicle than the export version, having electrically-operated windows and comfortable seats, which could be adjusted to suit the occupants. Its greatest advantage, perhaps, was that the

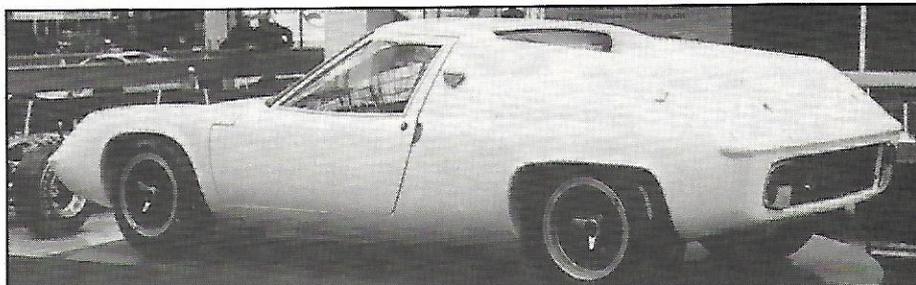
body was separate and sat, Elan fashion, upon the chassis like a saddle. It could be easily unbolted for repairs or even for replacement of the simple chassis frame.

Cooking Renault engine

The Renault-engined cars had a 7gall fuel tank in the left forward corner of the engine compartment, partly balanced by the battery on the other side. This was adequate for the frugal French power unit, but when more potent machinery was adopted, twin tanks mounted on either side, rather further back, each with its own filler cap, gave a total fuel capacity of 12½gall.

The Renault engine was, of course, a 'cooking' power unit, but with a weight of just over 13cwt and excellent aerodynamics, the performance was adequate for a road car. Speeds of up to 115mph were recorded, with a 0-60mph time of 9.5 to 10.7sec according to the various road tests.

It had been intended to offer a 'hotter' version with a Gordini engine, but this was regarded by Renault Alpine as an invasion of their territory. Accordingly, it was decided to adapt the twin-cam engine from the Elan, still using the Renault transmission. At first, the more powerful 'Big-Valve' engine could not be used, as it would have overloaded the original Renault gearbox. Later, Renault produced



The Lotus 47 racer, above, like the Europa S1, had fixed one-piece door windows



The more civilised Europa S2 was introduced to the UK in July 1969. Note the 'Europe' registration



In October 1971 the 1558cc Twin Cam Europa was launched, with cut-down rear 'fins'