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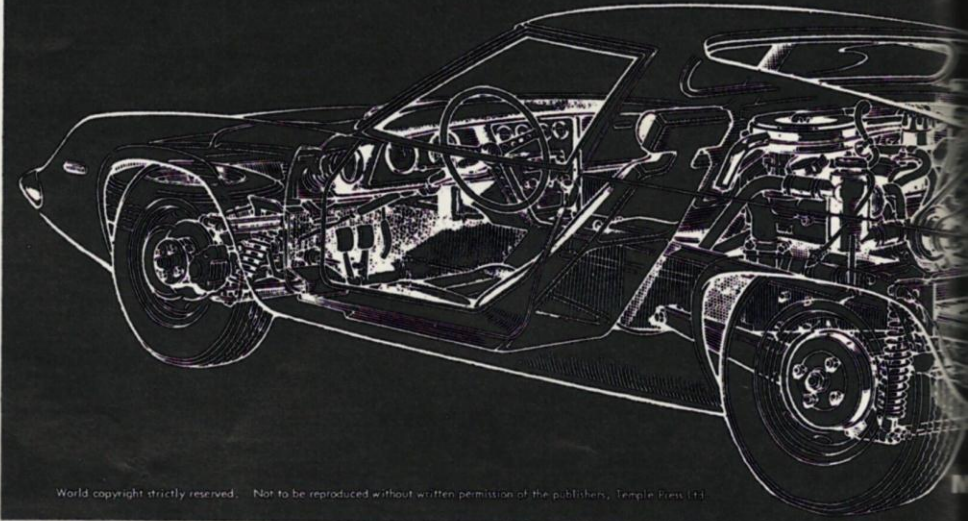
WHEN TWO MARQUES AS FAMOUS AS Lotus and Renault collaborate in producing a new Grand Touring car, the result is bound to be interesting. The Lotus Type 46 Europa, for export only in its first year of production, is undoubtedly a most significant sports car, developed by a post-war concern renowned for its racing achievements. Colin Chapman only launched Lotus in 1952, yet by 1965 they had won the World Drivers' and Constructors' Championships, and are today renowned for their fearlessly advanced thought in design.

When laying down the new Type 46 as a mid-engined two-seater GT coupé, Chapman sought a reliable, ready-to-use engine and transmission, which could be delivered virtually packaged at the Lotus works for installation in the body/chassis unit. He chose the Renault 16 four-cylinder engine and four-speed gearbox, normally installed at the front end of the car and driving the front wheels, and reversed the combined unit, placing it ahead of the rear axle in the fork of the Lotus Elan-type 'backbone' chassis member about which the suspension units and glass fibre bodywork are mounted.

The Renault 16 engine, a light alloy four-cylinder 76 x 81 mm, 1,470 cc. pushrod ohv unit with five-bearing crankshaft and 'wet' cylinder liners, weighs only 200 lb. in all, a valuable consideration in a 'performance' car such as the Europa. Modifications to impart a more sporting performance are effected by Renault at Billancourt. By dint of raising the compression from 8.5 to 10.25 to 1 with new pistons, fitting a new higher lift camshaft, Solex twin-choke carburettor (with manual instead of automatic choke), modified ports and a new inlet manifold, the 16's output has been raised from its standard 63 bhp (SAE) to 82 bhp at 6,000 rpm. The alternator ignition on the engine is retained but not the sealed cooling system, while the Lotus's radiator is mounted at an angle in the offside of the nose, and has thermostatically-controlled fan cooling.

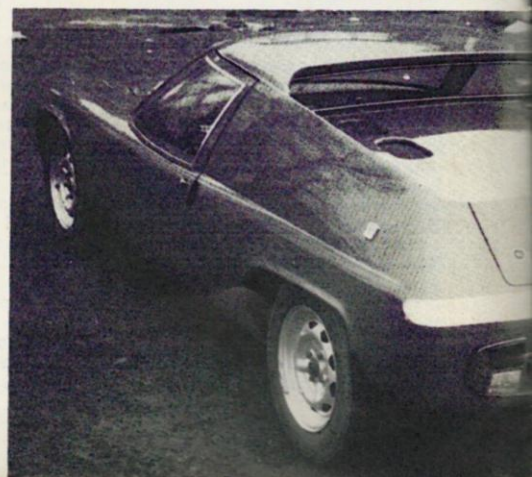
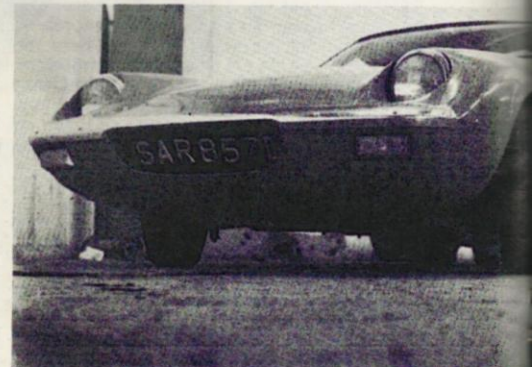
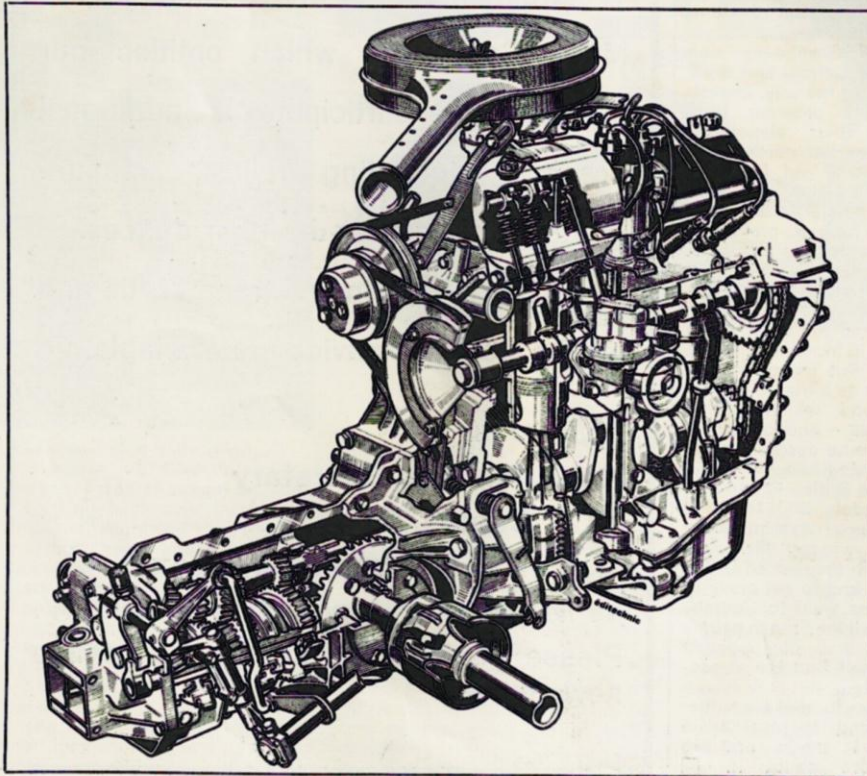
The gearbox retains the standard ratios of the 16 saloon, but new final drive gears, cut to rotate the opposite way when installed 'backwards' in the Lotus, give a slightly

ANGLO-FRENCH CONCORD

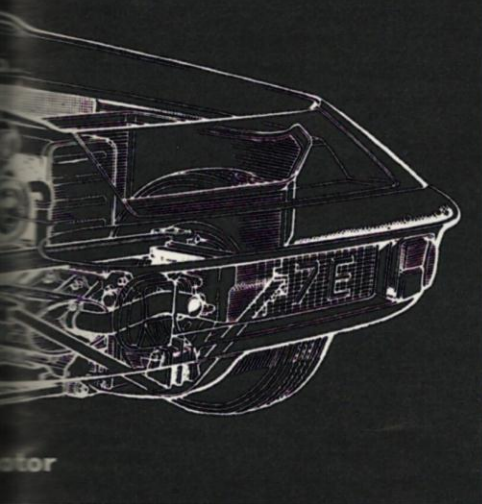


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Lotus body and chassis/Renault engine and gearbox — that's the



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higher drive ratio of 3.56 instead of 3.77 to 1. The engine/gearbox units are delivered to Lotus with full modifications ready for fitting.

In structure the Europa is an adaptation of Lotus's well-proved Elan design, with a deep-section fabricated central backbone, in 16 gauge steel, forked at the rear for mid-engine location instead of at the front. Front suspension is of Elan coil spring and wish-bones type, with rack and pinion steering. The rear suspension is by coil springs and upper and lower links located jointly by channel section radius arms, low-mounted transverse links and the drive shafts themselves, which carry double universal joints.

The body is moulded in glass fibre and rubber-mounted to the chassis and, as the photographs indicate, is of striking form. The whole car is only 3 feet 7 inches high, which with a 6 inch ground clearance means a shallow, low-drag body of excellent aerodynamic shape. It has, indeed, been meticulously 'airflowed' by its designers Colin Chapman and John Frayling, while the moulded contours were cunningly adapted to readily available Ford-manufactured bumpers, a commonsense economy which has saved heavy tooling costs for original components, and is extended to numerous other components, thus enabling the Europa to be retailed in France at a competitive figure.

The brakes are Girling discs at the front and Girling drums at the rear, wheels are of Lotus Elan pattern, carrying 155-13 Dunlop SP41 tyres, and only left-hand drive versions of the car will be built at first. The windows are fixed, ventilation being by a very comprehensive ducted airflow system. Luggage is housed in a nose boot and in a larger, removable boot in glass fibre, at the rear behind the engine. The engine cover is not hinged, but rests in moulded 'registers' and is secured by key catches. A seven-gallon petrol tank is mounted to the offside of the engine compartment, with a second, similar tank on the left an optional extra.

What of performance? With an estimated overall weight of circa 12 cwt. (the standard Renault 16 saloon weighs just under 19½ cwt), that very low drag bodywork, and the 82 bhp

engine, maximum speed is about 115 mph, acceleration from 0 to 100 mph takes 21.7s, and fuel consumption is estimated by the makers at around 36-40 mpg, and approaching 50 mpg at a steady 60 mph.

With a retail price tag of circa 19,000 francs (about £1,390) in France, the Europa is clearly aimed at the Matra Djet and Renault-engined Alpine sports car markets. Deliveries are scheduled to begin at the end of February, and the car will be handled by Continental Lotus distributors, not Renault agents. A first-year production of 500 cars is planned, and it is intended that the Europa will eventually reach Dutch, German, Belgian and other Continental markets. It will not, however, be sold in the USA. A British right-hand drive version may be produced later, but nothing has yet been decided, as this new Lotus, using a French engine and transmission, is specifically aimed at the European market. As an up-to-the-minute design of striking appearance, it should make considerable impact there. □

EUROPA X-RAYED: (Top, left) a cutaway drawing by Brian Hutton of 'Motor' of the Renault-engined Lotus 46.

Extreme left. The Renault 16 engine has been modified to give 82 bhp @ 6,000 rpm instead of the standard 63 bhp.

Left, above. The svelte appearance and low-drag coefficient of the car are obvious from this worm's eye view (sorry, photographer - nothing personal!)

Left, below. Novel in shape, but efficient aerodynamically - there'll be no identification doubts about the Europa's tail when the car passes you! This prototype has no hubcaps.

Centre. Left-hand drive is fitted to the Europa, intended for Continental markets.

Below. Another front view; the headlights are unfaired, airflowing tests proving transparent covers to have no aerodynamic benefit.

Bottom. The front registration numbers are mounted across the radiator grille, actually attached to the mesh. In this photograph the car is wearing its hubcaps.

