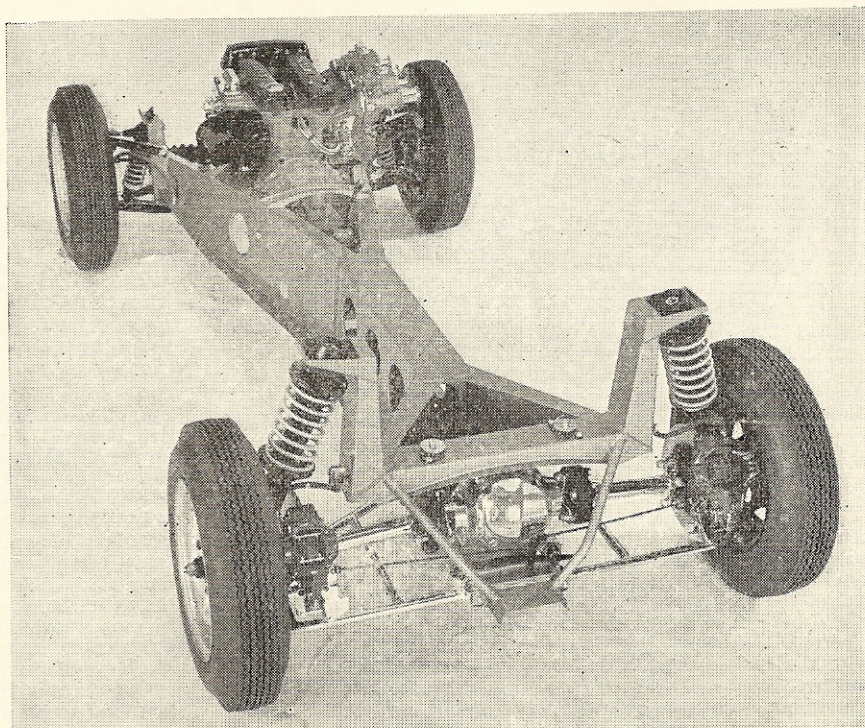


A New Lotus Sports Car

The interesting Lotus Elan backbone chassis, of welded steel construction, with all-round independent suspension by wishbones and coil springs, with disc-brakes all round.



THE little Lotus factory at Cheshunt in Hertfordshire, is never inactive, and while Colin Chapman and Team Lotus are away winning Grand Prix races, the Lotus design staff are busy on new projects. One that has kept them occupied for the last year or more, is the design of a new production sports car, to fit between the sporty Lotus Super Seven and the sophisticated Lotus Elite. This new model is called the Elan, and has little or no connection with any previous Lotus model, breaking entirely new ground for the Cheshunt cars by having a backbone chassis frame, built up from sheet steel. This backbone is like a tuning fork, with the engine/gearbox unit mounted between the prongs and the propshaft running down the backbone. (For older readers who are unable to comprehend design trends in 1962, this is like the R-type M.G. Midget of 1935, but there the similarity ends). The 1½-litre engine for this new Lotus is the 5-bearing Ford 116E fitted with the Lotus designed twin-cam cylinder head, using two double choke Weber carburettors. This power unit has been race tested during the past season in a Lotus 23 rear engined sports car driven by Jim Clark, but the Elan has the engine at the front. Ford gearbox, propshaft and final drive unit are used, so that mechanically this new Lotus is much more of a serious conception than previous models which have used a bit from this manufacturer and a bit from that, and then adapted them to fit together. The all-round independent suspension is Lotus designed, the backbone fork at the front necessitating short wishbones, while at the rear very long wide-base wishbones indi-

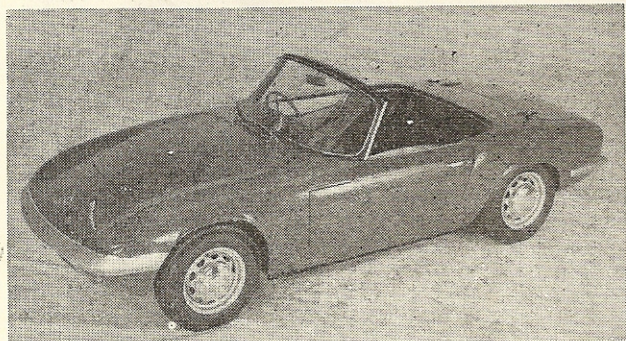
cate Formula 1 parentage, while Chapman-struts are used here. Drive from the chassis-mounted differential unit to the wheels is via tubular shafts with rubber universal joints as used all this year on the works Formula 1 cars.

The open 2-seater body for the Elan is in glass-fibre and is a new step forward in this type of construction as it is in one piece, with no joints. The body is fixed to the chassis at 14 points, and the backbone is so rigid, particularly in torsion, that the fibreglass body takes little or no strain. The lines of the body are smooth and sleek, and of the roadster or Spyder type, with lidded boot and a cut-off tail not unlike the Elite. The front drops down to a small radiator opening and in order not to ruin the lines by mounting the headlamps at regulation height, as was done on the Austin Healey Sprite when it first appeared, the Elan has the headlamps sunk into the body when not in use. When the lighting switch is operated the lamps hinge upwards and backwards to regulation height, operated by a vacuum unit. As the body designers say, this arrangement of retractable headlamps gives clean lines to the body in daylight and at night you can't see the lines of the car so raised headlamps will not matter. A great deal of thought has gone into the collapsible hood, so that when it is raised it forms a rigid hard-top in conjunction with slide-up side windows. Apart from two grease nipples on the Hardy Spicer propshaft joints there is no chassis servicing called for and doors and bonnet are hinged on nylon bushes.

In standard form the engine gives 100 b.h.p. at 5,500 r.p.m. and Fords are shortly to make close-ratio gears for the 4-speed gearbox. Disc brakes are fitted to all four wheels, pressed steel disc wheels are specially made for Lotus and the retaining nuts are covered by neat Lotus knave-plates. This new model whose full title is the Lotus Elan 1500, is very much a complete Lotus design and a one-piece production, rather than an assembly of proprietary parts, which previous Lotus production cars have been. With this new model, Lotus take a big stride forward into becoming a complete manufacturer of production sports cars, and the neat little Elan should be in production by the time these words are in print. The engine, gearbox and final drive are all made by Ford, and throughout the project there is every indication that Ford of Dagenham are taking more than a passing interest.

The wheelbase is 7 ft., the overall length 12 ft. 1½ in., the height to the base of the windscreen is a mere 2 ft. 6 in., and the height to the top of the hood is 3 ft. 7½ in. The price? £1,499 complete or £1,095 in a "kit form."

This will ensure not only serious production methods, but also serious development methods and the Elan should benefit, while Lotus Cars certainly will.—D.S.J.



The neat little Lotus Elan 1500 roadster, with headlamps in the retractable position. The glass-fibre and polyester resin body is built by S. Bourne & Co. (Plastics) Ltd., of Nottingham.