



*Top left, special rear hubs, big brakes and adjustable suspension. Above, grippy Formula Ford tyres on light wheels. Right, superbly tractable, yet powerful Twin Cam. Far right, snug, efficient cockpit and safety-first fuel system*

Therefore, history suggests that making an Elan into a strong rally car is not as straightforward as it might seem, even with recourse to the 26R homologation sheet and even allowing for the fact that today's Historic events are less gruelling than their predecessors were.

The car has to possess an effective blend of power, strength, reliability and handling. Bob Brain and Dick Saunders of Bob Brain Developments, based in South Wales, attacked the project with vigour, starting in late 1987. The basis of the project was a very early Elan indeed; chassis number 27, in fact, dating back to 1963. The car in question was bought from well-known Elan driver Tony Thompson, who had planned to make another racer from it but never got around to it. Maybe the work never started because the car was in such bad condition.

First item on the shopping list was a new chassis, obtained ungalvanised, direct from Lotus. Not only did the lack of the zinc coating save weight, but it eased the welding on of brackets, fixings and strengthening sections. Depressingly

little of the glassfibre body could be saved. That which was beyond repair was replaced by new sections, produced from original S1 Elan moulds to standard, rather than 26R thickness in view of the battering the car would have to take. Only the doors, bonnet, boot and wings were moulded to the lightweight 26R specification.

The FIA regulations that apply to the preparation of an engine essentially allow any modifications of the type that may have been applied in the day. Technology and materials have come a long way in 25 years and the bottom line of this is that today's Elan 1600cc Twin Cam engines probably do produce more power than ever they did in their heyday. A steel crankshaft, steel con rods and light, modern pistons allow an 8,000rpm+ rev limit which, coupled with modern camshaft profiles and state-of-the-art cylinder head gas-flowing, can produce outputs of more than 180bhp; significantly more than the likes of John Miles enjoyed in his works Elan all those years ago. Paul Howcroft's engine produces around 175bhp; less than most of the Italian 26R

lookalikes that dominate the European Historic racing scene, but more than enough to leave most other cars of the period for dead.

The Elan's suspension remains much as Colin Chapman's men penned it back in the early Sixties. To obviate a move into the more specialised sports-prototype class, the original pressed-steel Triumph Herald-derived front suspension is used rather than fabricated tubular steel parts. However, rose joints replace the normal roll-inducing rubber-bushed items. The dampers are the best adjustable ride height units from Koni and the coil springs that surround them were specially made to rates that were arrived at only after much time-consuming (and expensive) experimentation.

The original rubber doughnut-coupled driveshafts wouldn't last very long on a hard-driven rally car, so a move to Hardy-Spicer solid couplings was an obvious step. The drive shafts too were uprated; being derived from, of all things, Land-Rover units, which offered more than sufficient strength for the job at hand. The differential, nestling in a