

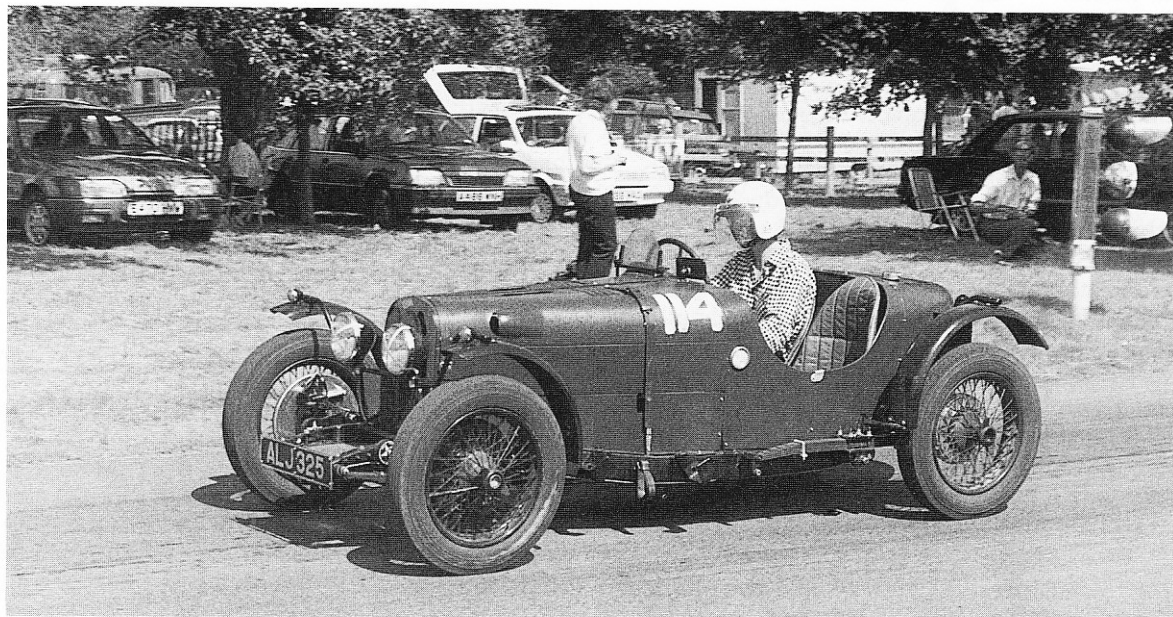
Riley-ELF

A Riley Elf is of course a production model Riley, but the Riley-ELF is something rather special. ELF stands for "Extra Large Ford" and gives a clue to the motive power. This is 3.3 litres of Ford Model B engine, modified to an inlet over exhaust valve arrangement by using an Australian alloy cylinder head conversion. Four SUs provided the "gas" at first, but a pair of 1.75 in instruments seem to work better. The Riley chassis was taken from a 1934 9 hp model and has been shortened, and narrowed by 5 in to bring the springs outside the frame. The front end retains conventional semi-elliptic suspension; the rear has a cantilever set-up using the original springs. The transmission starts with a Ford three-speed Model B gearbox, which is connected to an open propshaft and then to a cut-down Riley-torque tube. This gives a layout rather like an Austin

Seven but on a bigger scale. The rear axle contains a 4.1:1 final drive from a post-Second World War Riley. Riley cable brakes at the front and rod-actuated Lancia Agusta drummed rears take care of the stopping. The slim two-seater body is the work of Duncan Ricketts. Originally the car had 4.50 x 18 tyres, but these have been increased to a 4.75/5.00 section.

Sandy Skinner built the special, "cutting some corners" as he was not quite sure if it would work, but when Jane Arnold-Forster took 6 sec off her handicap time with her first outing in this car at Prescott in 1989, the potential was obvious. How-

The shortened chassis of the Riley-ELF features cantilever rear suspension that uses the original semi-elliptic springs in a different mode.



ever, as the ELF was found to be undergeared and underbraked, it was rebuilt into its Mark 2 form.

Hydraulic brakes were high on the agenda. A single leading shoe conversion was used at the back end, with a "more or less scratch built" twin leading shoe arrangement fitted at the front. The system also features twin master cylinders. A new crown wheel and pinion was cut to give 25 mph per 1000 rpm gearing, and the rear axle better located by the addition of a Panhard rod. While these modifications were being attended to, the opportunity to improve other areas of the car was seized upon. The engine was converted to full pressure lubrication by means of a Mini-Cooper S oil pump driven from the front of the camshaft – not an easy job because of oil seal problems – and a close ratio preselector gearbox with modifications by Bill Morris was installed, which of course meant new flywheel and bell housing.

In its dull maroon paintwork this is an unassuming car – but nevertheless a fast road and competition vehicle in the making, with plenty of "grunt" from its hopped-up big four-cylinder power unit.

Riley-ELF

Technical Specification Data

Date of origin: 1934

ENGINE

Type: Ford
Capacity: 3300 cc
No of cylinders: 4
Valve operation: ioe
Estimated power output: 90 bhp
Carburation: 2 x SU carburettors

GEARBOX

Type: Armstrong Siddeley
No of ratios: 4

CHASSIS

Type: Riley

FRONT AXLE

Type: Riley
Suspension: 2 x Semi-elliptics

REAR AXLE

Type: Riley
Suspension: 2 x Semi-elliptics

BRAKES

Type: Drums all round
Actuation: Hydraulic

WHEELS

Size: 18 in
Tyre Size: 475 x 18
500 x 18

OVERALL DIMENSIONS

Length: 127 in
Wheelbase: 93 in
Track: 49 in (front & rear)