

# Running with the FOX

*Mick Langridge gets on the trail of Tamiya's two-wheel drive electric Off-Road race car*

THE 'FOX' has a lot to live up to.

Its competition predecessor is the much loved 'Hotshot' — Tamiya's first pure racing buggy which took the club racing scene by storm and achieved respectability on the National stage with Richard Isherwoods two successive open wins against the omnipotent American steam-roller. Four-wheel drive had not been the dominant force it had been feared during 1985 — it was very much horses for courses but switching between 4WD and 2WD cars required a change of driving styles which few drivers were able to master.

I ran a 'Hotshot' during 1985 with some degree of success and as the power of standard(!!) class motors increased almost to that of modifieds the car remained

competitive. However, most countries still adhered to the 28 turn standard motor rule, with weight penalties for 4WD cars so the appearance of the 'Fox' was almost inevitable.

At first glance the photographs I saw in advance indicated a 2WD version of the 'Hotshot' but as the suspension and weight distribution requirements of the two types of vehicle differ considerably, the 'Fox' turned out to be completely new, having no interchangeable parts with its predecessor. I was fortunate in being able to borrow my local RIKO rep's sample a couple of weeks before the car was due to be delivered to the shops. I naturally offered to build it up and it just happened there was a National open the following weekend; alas my plans to be the first to debut the car in

competition resulted in a simple wiring error and a burnt-out speed controller. (Say after me — red to red — black to black), so it was back to the old faithful.

## Rear-end

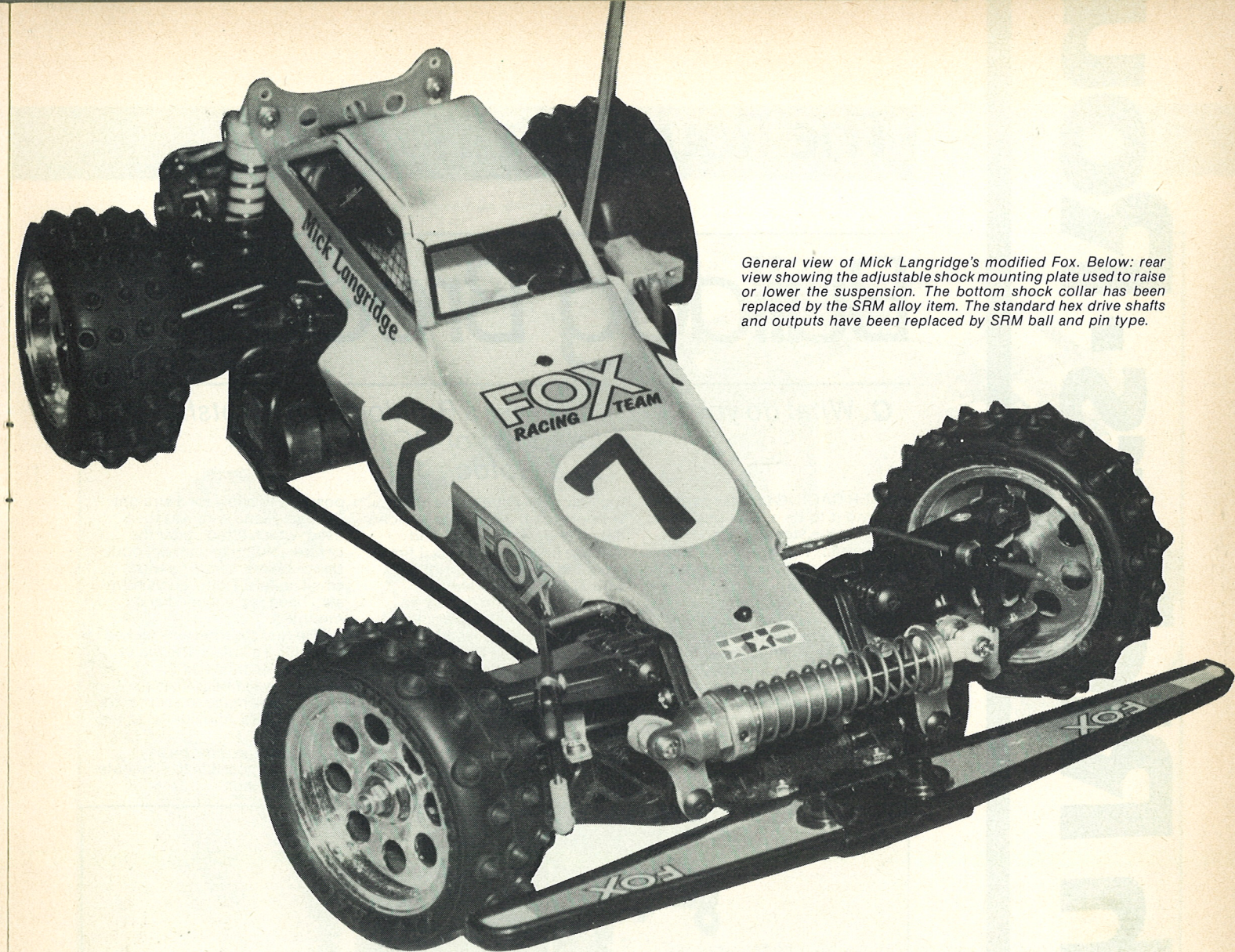
Assembly of the 'Fox' was the usual straightforward Tamiya job with only a couple of areas found to need improvement. The most important modification was to the rear drive system. For some reason (cost?) Tamiya have reverted to 'Frog' style hex-drive, albeit with the sophistication of spring steel retaining cups to prevent the shafts dropping out. The big problem with these is with the rear suspension on full drop the shafts bind and prevent the differential working. A suggested solution is to put a short length of tubing on the inner shock shaft which reduces the suspension travel and thereby reduces the binding. This is not an ideal solution, but I have been able to cure my 'Fox' completely by fitting a set of the excellent new SRM pin-drive shafts and cups which are really friction-free. Another way to ease the binding is by using another of SRM's growing list of 'Fox' add-ons — their adjustable rear shock plate. This has alternative mounting holes which allows for standard fixing, lowered suspension and full throw ('RC10' type) fully adjustable shocks. The basic hex-drive system will need regular cleaning and greasing to prevent wear.

Many potential customers for the 'Fox' may be deterred by the plastic shock absorbers included in the kit. Tamiya are the first manufacturer to use these in a competition buggy but before very long there will be many more makes on the market — including one of our own major manufacturers whose new Off-Road car will be in production before the summer. The 'Fox' shocks are very light and work well — the only problem I have encountered is stripping one of the bottom caps which take the suspension loads on full drop. This has been cured by fitting replacement alloy caps front and rear — SRM again.

## Front-end

At the front I lowered the suspension for the Model Engineer Exhibition by using SRM front fibre-glass mounts rather than shorten the shock throw. These mounts also allow the fitting of an 'RC10' long throw shock which has two types of springs and are fully adjustable. I used the twin hole shock piston front and rear and 20w oil (CRP). This combination also seems to suit my local track which is fairly smooth but undulating grass — frozen solid as I write.

At Wembley the car had the alarming habit of lifting a rear wheel on the bends; this was a direct result of having too much rocking movement on the front — temporarily cured by tie-wraps to limit this movement. A permanent cure has been the fitting of CRP anti-roll bar which fits straight



General view of Mick Langridge's modified Fox. Below: rear view showing the adjustable shock mounting plate used to raise or lower the suspension. The bottom shock collar has been replaced by the SRM alloy item. The standard hex drive shafts and outputs have been replaced by SRM ball and pin type.

on, needing only two small holes in the lower arms.

## Power train

The gearbox must be one of the smoothest and most friction-free of any buggy. At last the small cast bevels have been discarded and in their place are stronger nylon moulded versions. Being very light and having few moving parts compared to some endows the 'Fox' with excellent acceleration which the current breed of double wind standard motors thrive on. This light weight enables a taller ratio to be used, giving a higher top speed without any loss of acceleration. The 'Fox' is a delight to drive and proved very competitive at the ME Exhibition on the very tight, but entertaining track used. Despite using one of the new MG 'Red Dot' double wind motors my thumbs prevented a higher placing than a 'D' final, although I did make the third row of seats on one occasion.

One of the appealing things about the 'Fox' is the detail attention given to many areas. The rubber grommet around the servo-saver prevents the ingress of dust and water to the radio box, which was a fault of the 'Hotshot'. The front

support for the servo-saver helps prevent strain on the output bearing of the servo as well as giving more positive location and keeping bump-steer at bay. Other touches include the positive motor/gear adjuster and the combination nerf-bar/Ni-Cad retainer.

I personally think the sleek, crisply styled body makes the 'Fox' stand out from the rest — my wheels will soon be day-glo red rather than gold — and the large wheels combined with ground hugging suspension are likely to be familiar sight round the clubs this year.

