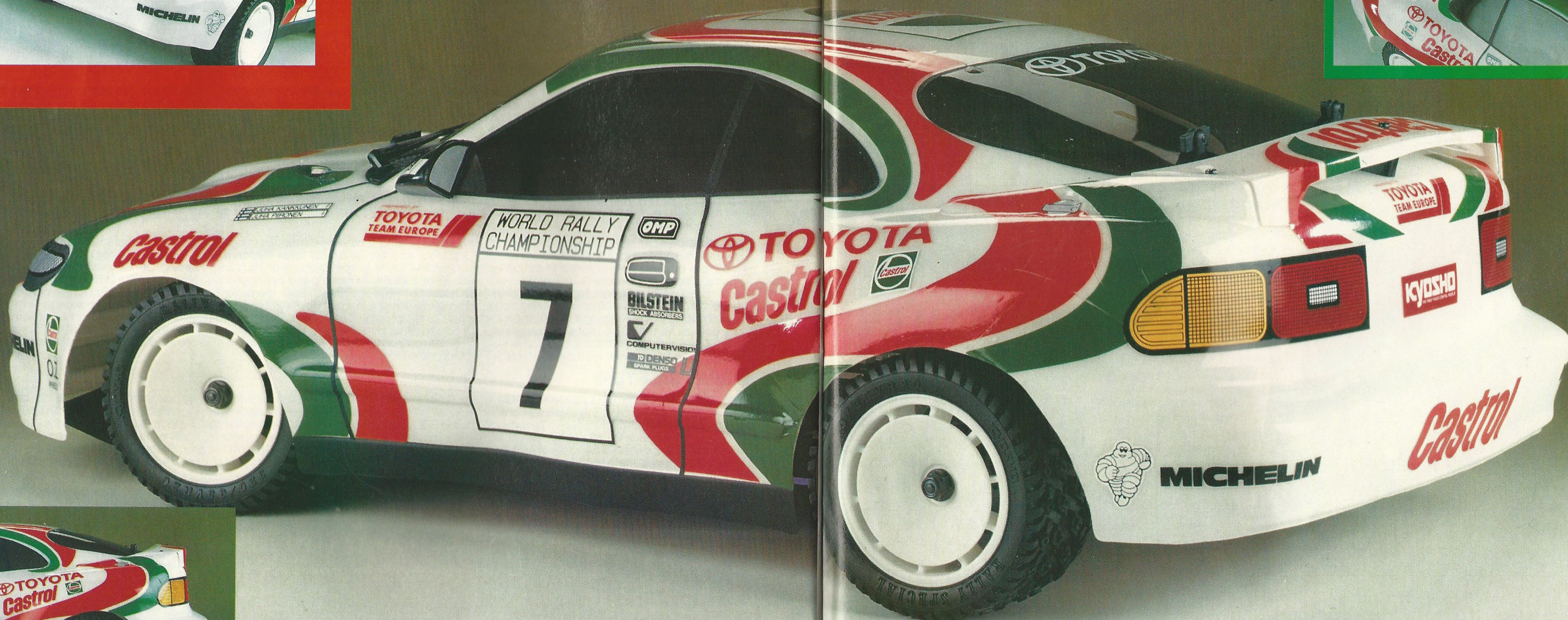


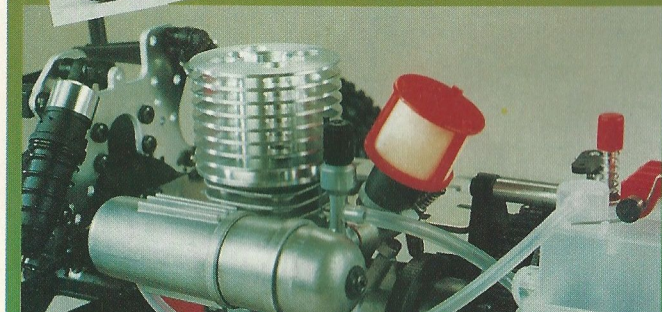
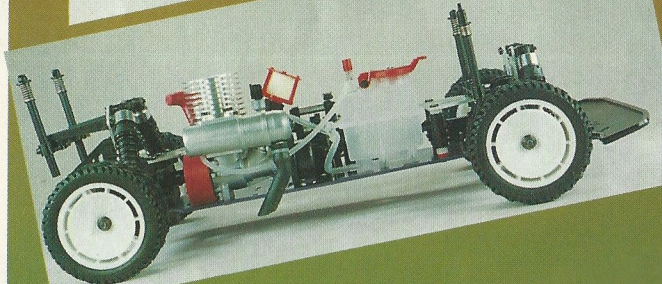
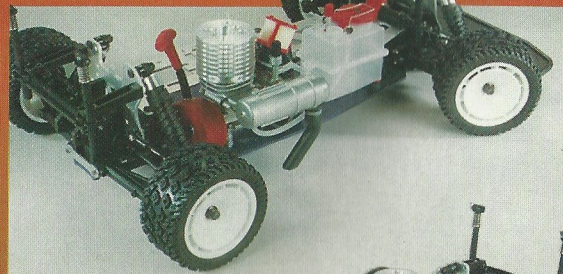
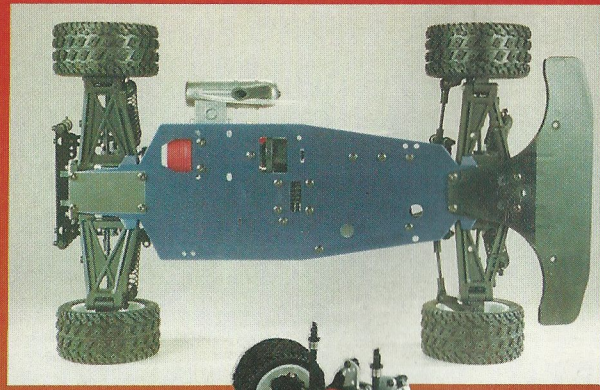
Kyosho suddenly have new kits being released almost weekly - the latest, the Celica 4WD features a two speed transmission, shaft drive and an attractive alloy chassis

TOYOTA CELICA
4WD - 2 SPEED

Kyosho go Kankkunen

When buying a radio control car for the first time, many people opt for an electric powered kit. There are several reasons (mostly to do with ease of running), but if you're feeling a little more adventurous, why not go for a glow plug engine powered car? Kyosho have a long established reputation in the RC car business, and when their 1:10 IC powered Castrol Celica 4WD arrived at the office, we were especially intrigued to read it had a two speed, automatic gearbox...





How it arrived...

The car comes partially built with Kyosho's GS11X glow plug engine, fuel tank, front and rear diffs and central gearbox, all factory installed. The chassis is a double deck aluminium construction, the lower plate attractively anodised blue. Suspension, steering, shock absorbers, and other ancillaries are supplied in component form.

Ball races are fitted in the crucial areas, ie; engine and central drive train, and plain sintered bearings provide the support for the hubs, upgradeable to ball races of course. Much of the construction is via self tapping screws, so be careful not to overtighten, especially as some of these screws have quite fine pitches.

No major problems were encountered when building the kit, but do read the instructions thoroughly to avoid silly mistakes. I found that by removing the fuel tank it was easier to access the front suspension during build-up, but again, those self tappers will strip through the plastic of the tank, so be careful!

The lower wishbones on all four corners pivot on steel pins that feed through moulded lugs on the arm and gearbox. The fit here is very tight – good for eliminating free play, but you might need to tap the pins in with something solid.

Many of the suspension linkages rely on ball joints – and there are two types of ball supplied in the kit. Some are chrome plated and some are black coated, all of which is made clear in the instructions.

Variable ground clearance is achieved by turning a set screw at the base of each suspension arm, which raises or lowers the arm by

pressing on a tab shaped extension on the chassis plate below. I set mine up with the screws flush to the arm, giving maximum clearance – when the radio gear, batteries and fuel are added, the car will sit lower and final adjustments can be then made with an extra long Allen key (not included).

Damper settings

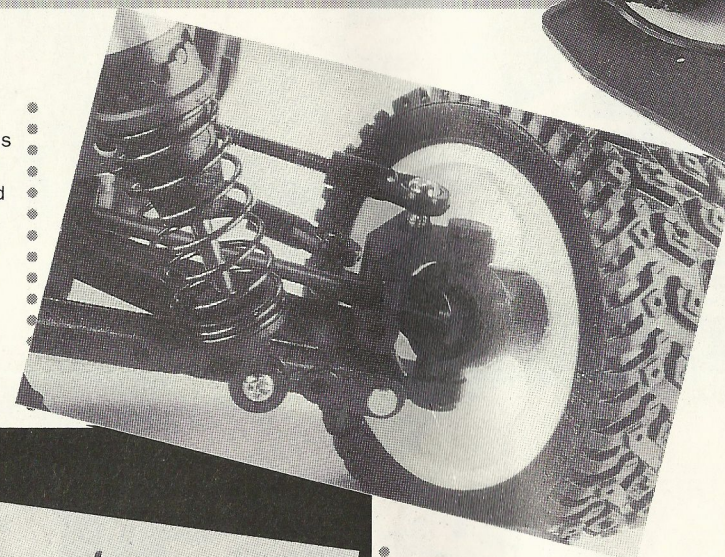
Injection moulded nylon dampers are supplied in the kit, and the lower O rings are pre-installed for a good seal around the steel shaft.

If you work slowly when building and filling the dampers and make sure to eliminate all air bubbles from the oil, the kit supplied items feel very smooth and constant. A multi setting ring sits at the top of each damper body, allowing you to adjust the stiffness of the spring for different surfaces. When the tyres were slipped onto the wheels and mounted to the car, the resulting rolling chassis felt very smooth and stable with totally dead damping – just what you need for those high speed take offs!

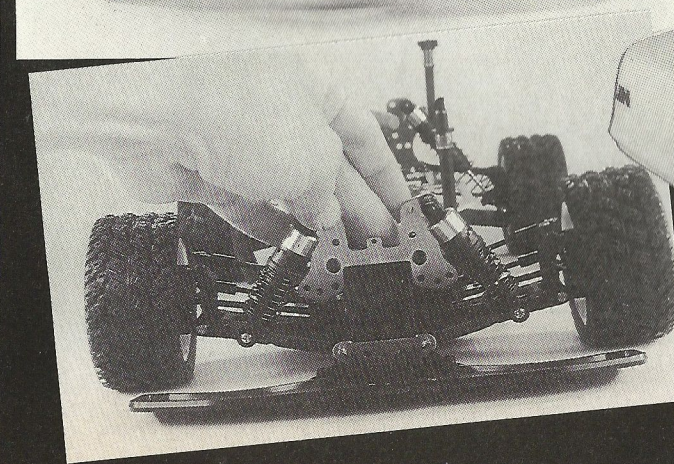
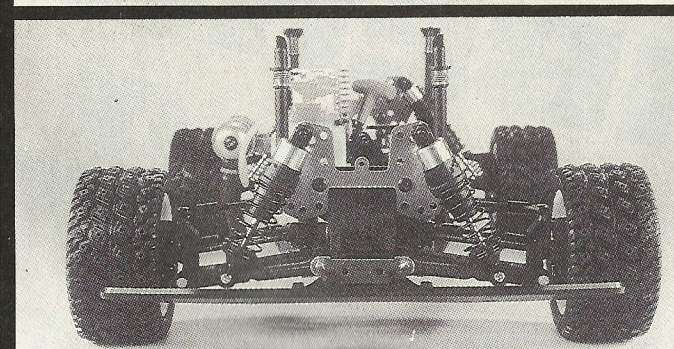
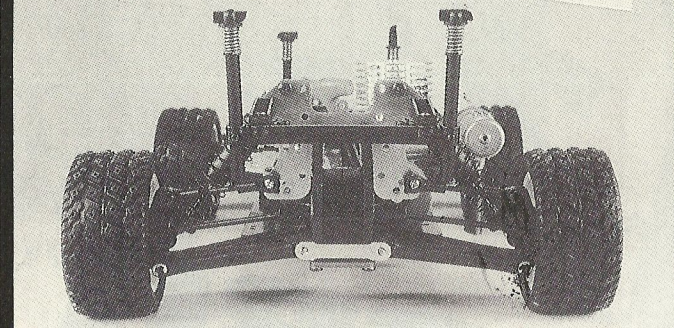
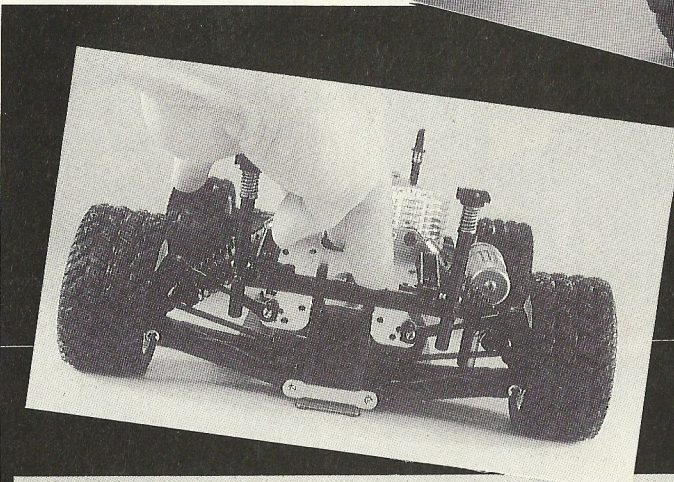
The car is much easier to assess once built up, and the overall

impression is one of quality and attention to detail. The fuel tank has a good strong snap down lid and a priming pump – not always included in some kits. The air filter in a neat little Kyosho foam item which pulls off easily for cleaning, and the pull start looks solid and up to the job.

The kit also features Kyosho's very clever body mounts which are spring loaded and don't involve separate parts that can easily get



Dampers feature motorcycle like spring adjusters - easy and quick to use. Left; Our version set-up with full suspension movement.



lost.

The main difference with this kit to other RC cars is its two speed transmission, to be found in the centre of the chassis. Basically, it uses a second clutch, working on the centrifugal principle like the primary drive, with an adjustable bite point. When the RPM of the second clutch shoes reach their bite point, they "overtake" the first clutch via a one way roller, thus engaging second gear. The system theoretically gives higher speed, and as the gear change up/down point is variable, you can set the Celica's acceleration to suite the surface quality, size of track etc.

To top this impressive chassis off, a nicely moulded Celica rally bodyshell is included, and it captures the muscular character of the full sized vehicle superbly. A very simple overall white paint job is called for, but that curvy rear windscreen was a challenge to mask, and it still doesn't look right! The black areas on the shell were sprayed matt black from the outside, and the door shut lines

and window seals etc were added using Kyosho black Micron Line Tape for a neat effect.

After all painting was finished, the outer masking film was peeled off and the excellent stickers applied. Finally, the windscreen wipers, rear view mirrors and rear wing were screwed in place.

Kyosho offer several cars that use similar chassis and suspension components, and so they have had the chance to iron out all of the bugs over a period of time. The car is easy and safe to drive thanks to considerable understeer, and generally behaves well under most conditions. The Castrol Celica Turbo 4WD is Kyosho's first 1:10 scale IC powered car with a two speed auto gearbox, and is well up to the company's high standards of engineering, fit of parts and general "buildability".

A list of all the extra items you'll need to get running is provided in the clear to read instruction booklet, so this kit might be a good choice for a newcomer to IC power – it certainly makes a change to electric power! Available from all Kyosho stockists with alternative body styles.

Anodized chassis is the most prominent feature. Engine features turned alloy head and reliable Kyosho pull start.

Left; Detail of the two speed centrifugal gearbox unit. Right; Foam air filter and fuel lines all supplied.

