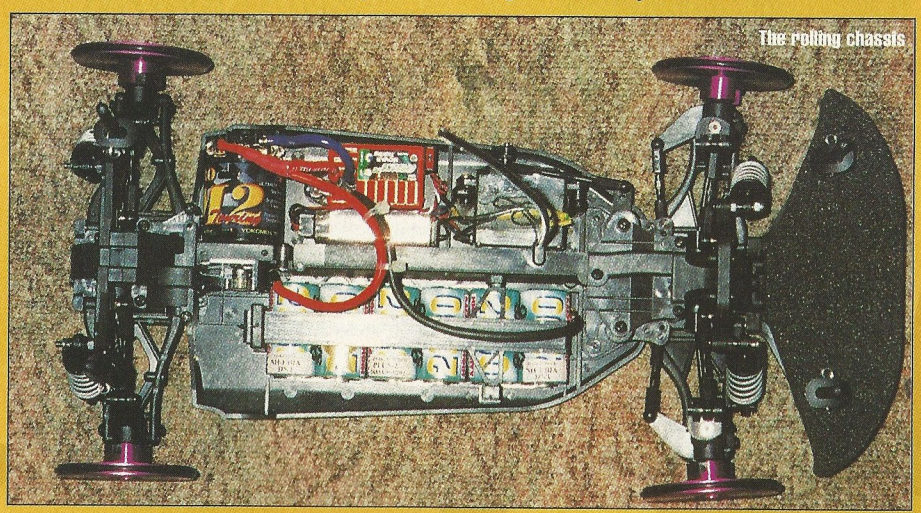
Where is that race track!

eastern promise

Yokomo MR4 Touring Car

In a recent conversation with your Race Car Editor we were discussing the untimely downfall of my chosen class of racing, F1, within the TORC series and that as a result I was considering racing in the scale saloon class. Your editor then asked me if I would be interested in reviewing the new MR4TC from Yokomo. Having already tried a Losi, an M1 Express, a Schumacher, a J type Yok and an Hong Nor Z10 (GMZ10), I thought wow, yeh go for it!

The difficulty was that as soon as you opened the box you wanted to find a track and go and race it but you are faced with 16 or so polythene bags all containing various bits to the car, a chassis and a body shell that needs just a little bit of work in putting together before you race it.



The rolling chassis

Build me, build me, build me.....

Construction

Years ago I raced a Yokomo Dog-Fighter off-road and was impressed then with the high quality of the components. I was quite looking forward to see if the quality of components which were awaiting me were up to the same standard. The initial reaction on opening the box was 'Yes they are', the second was how well labelled each of the polythene bags were. And here comes the discipline part, there is an old saying 'if all else fails, read the instructions'! I am the sort of person, as my wife will tell you, that when opening an envelope I very often destroy the outside to get to the inside. Constructing a radio control car kit by this procedure is definitely a no-no.

Chassis

The first thing you notice about the chassis is that it places the electrics, servo and motor down one side and batteries down the other. Either stick or saddle pack NiCads can be used. The chassis is constructed with composite material which looks as if it contains some graphite

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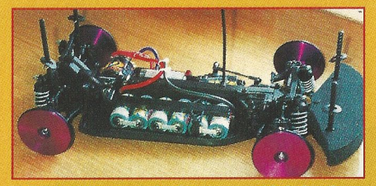


The 'Take Off' set up wheels are a great help for those final adjustments

ready to put on the two drive belts. Looking at the car from the rear make sure the diffs are placed into the bulkheads so that the diff adjustment screws are on the right, and the smooth side of the diff pulley is on the left.

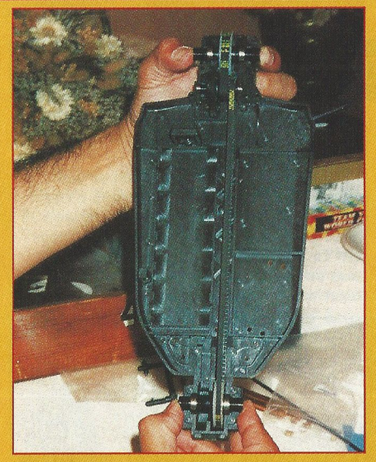
Next comes the front dust cover, motor mount and backbone. As with the bulkheads these are made from a reinforced, high quality composite material. Next up fit the back bone cover, front and rear backbone caps, which hold the diffs in place. In the instructions installation of the

Front suspension arms just about to go on

material, it is very strong and very lightweight. Once you have placed in your front and rear bulkheads and battery plate posts you are ready to move on to the construction of the diffs. Most of the screws used in the kit are of the self-tapping type and just a little bit more time than you might think is necessary here.

Ball-diff Assembly Front and Rear

When constructing these, again follow the instructions to the letter. The MR4TC comes supplied with 24 main balls, 12 front/12 rear. Black grease is supplied for the thrust washer assembly. Note that the diff rings and diff balls are coated with a special oil to prevent rust forming on them during shipping, if the diffs are built without cleaning the oil off the diff rings the oil may cause the diffs to slip. Make sure you clean the diff rings and diff balls with a motor spray cleaner before assembling the diffs, this will help the diffs operate much more smoothly and consistently. Adjustment of the diff is as per norm and is laid out very clearly in the instruction book. The MR4TC comes with a standard 78T spur gear, 48 DP. Once you have installed the centre shaft assembly to the spur gear, you are

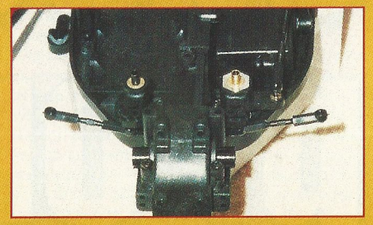


The chassis tub with the front, rear diffs and drive belts fitted

motor is next along with the rear dust cover, however, you can leave this to a later time or fit it now, one thing I did notice at this point was with the backbone and bulkheads in place and with the motor fitted with its dust cover, the entire drive belt, as with the rally car version reviewed by RRCI in June, is completely sealed, a big plus if you run in the wet.

Steering

The MR4TC uses the traditional servo saver and turnbuckle tie-rod assembly for the steering. This is the only part of the car which is not ball-raced. This can be up-rated at a later day if so desired. If you follow the measurements in the instruction book of 52 mm on the stud bolt, 42 mm and 64 mm on your two turnbuckles it won't be too far out of alignment when constructed. I did find the turn buckle wrench supplied with the kit absolutely first class in fine tuning the adjustment of the steering for straight line running. Once you have placed your steering tie-rod and servo mount in position it is time to fit your servo, the kit is supplied with various forms of spacers to move the servo away from the chassis if needed. The servo horns supplied with the kit are clearly marked for the range of servos available nowadays. The next items to be fitted were the servo saver support, front and rear upper arm assembly, front and rear shock tower installation. Do remember to ensure that the towers are actually set correctly



Front bulkhead and steering

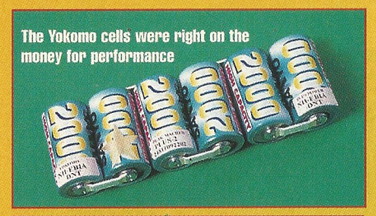
before tightening the screws otherwise you will get distortion.

You now move on to the front and rear hub carrier assembly and bearing installation. There is not a lot you can get wrong with this part of the construction but pay attention to detail here and your car will run in that all important straight line.

Next comes the suspension arm assembly together with front and rear sub arm assemblies. These are again quite straightforward. Finally, the upper arm tie-rod installation - but before mounting these make sure that all 4 suspension arm assemblies move freely up and down. Then fit your upper arm tie-rods.

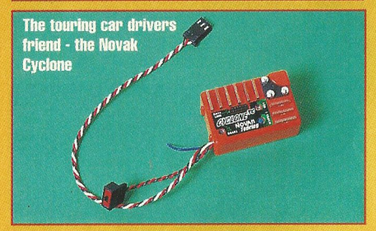
Shocks

For the assembly of the shocks I decided to put type 1 pistons in the front shocks (2 hole) and type 3 in the rear shocks (3 hole) and assemble these again as per instruction. Close attention to detail with the shocks is an important part of the car's performance. I used the 30 weight oil which comes with the kit as I wanted to run the car in kit form to get an accurate view of the kit itself before further experimentation. When the shocks were assembled with the kit springs they felt mighty impressive indeed, no leaks, no air bubbles just a very smooth operating shock absorber. I must stress that you take care when you fit them to the car. Unlike any normal fitment, you fit the long ones to the front and the short ones to the rear, if you fit them the other



The Yokomo cells were right on the money for performance

Smooth power delivery from the Yokomo 13 X 2



The touring car drivers friend - the Novak Cyclone

way round the front of the car bottoms on the floor. Once I had put the body posts, front bumper and foam bumper on I bolted on the new Take Off set up discs and the car looked absolutely superb.

'When the shocks were assembled with the kit springs they felt mighty impressive'

Installation of Electrics

CML had kindly supplied the new Cyclone TC Novak Touring speed controller, Yokomo Zero M powered Super Touring modified motor (13T) and a pack of Yokomo high capacity 2000 cells. These were installed into the car and wired up together with a fet servo .

Bodyshell

We fitted a Protoform Volvo S40 supplied and painted by CML.

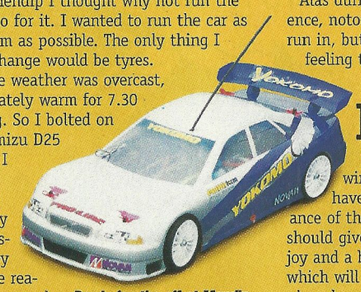
Track Test

As I was already booked in to the BRCA round to be held at Mendip I thought why not run the new car, let's go for it. I wanted to run the car as close to kit form as possible. The only thing I was going to change would be tyres.

On arrival the weather was overcast, dry and moderately warm for 7.30 in the morning. So I bolted on a set of Pitshimizu D25 slicks, 24 mm. I chose these because this is what everybody else was practising on and they seemed to have reasonable grip. I geared the car up on a 24 pinion and took it out for its first installation lap. With just 2 degrees of sub trim on the radio's steering the MR4TC was unbelievably going in a straight line, I did 2 laps of the Mendip circuit on the dirty side of the track due to the fact I was at quarter speed, as I wanted to run the belts and the diffs in and also scrub the tyres off. I then started to squeeze the throttle a little harder and came onto the racing line a little more to clean the tyres off so I could have at least 2 or 3 laps actually driving the car. On the track at the same time were 2 other drivers, neither were running Yoks. I thought why not, forget the discipline, let's see what she can do, I went past the rostrum on what would have been my 9th lap now and about 10 yards away from these other 2 cars, I came off the throttle and turned right and the car reacted so smoothly that it just filled me with confidence, the turn-in was precise and it went where you wanted it to go. The Yok gave a good feeling of balance especially coming out onto the long straight at Mendip following the all important right hander, as the exit speed here is critical to a good lap. As I exited the corner I gave it the gun thinking I would have to walk across the circuit to pick the car up out of the grass but wait... the confidence reached boiling point as the car just sat down in the middle of the track and accelerated with no hint of the back end stepping out, helped no end by the fantastically smooth Novak Cyclone speed controller. The motor was giving good performance to pass the first car before coming off the throttle at the end of the straight.

Coming back into the tighter section of the Mendip circuit and coming round the horseshoe to the rostrum again the balance of the car and quick response from left to right, was most satisfying with a combination of the chassis and suspension working together very sweetly. I was right up the boot lid of the second car when I decided to bring it in and check it over. But the lap at full tilt certainly filled me full of confidence that the car is definitely on the pace. If anything I was lacking a little bit of top end speed, the balance of the tyres was good but I wanted to try to do D30 Pits in preparation for qualifying. These were fitted together with a 28 pinion and another set of 2000s and the temperature had gone up a little by this time. I then went out for another practise as the track was fairly clear and did another 9 or 10 laps getting down to an average lap time of a breath over 20 seconds. I stepped off the rostrum with a lucky feeling and could not wait for qualifying to begin. I took the car back to the pits cleaned up the tyres, changed the batteries and waited.

Alas during qualifying I experienced interference, notorious at Mendip and only got one half run in, but came away with a very confident feeling that there is life after Formula 1.



Ready for the off at Mendip

Kon-clusion

I think Yokomo have certainly got a winner on their hands with this car, as I have already stated in this review the balance of the car and the driveability is superb. It should give an experienced racer a great deal of joy and a beginner a great deal of confidence which will lead to enjoyment. The overall winning element of this kit is the price, just under £150 for a very competitive 1/10th scale saloon from Yokomo, Available from most good model shops, with a full back up of spares.

Our thanks to CML for supplying the review model and electrics. RRCI

Quick Spec

Car MR4TC Yokomo 1/10th Scale Electric Competition Fixed 4WD Touring Car Kit. Independent suspension by oil filled, coil-over shocks. Belt drive. Fully ballraced. Requires Bodyshell, paint, Battery packs, charger, motor, ESC and two channel radio to complete.

Tester Kit

Electronic Speed Controller:	Cyclone TC Novak Touring.
Motor:	Yokomo Zero M Power 13T
Batteries:	Yokomo Sanyo 2000
Body Shell:	Volvo S40 from Protoform
Tyres:	24mm Pitshimizu D30 standard inserts
Servo:	KO Propo Fet.
Radio:	JR756.

Likes

The overall quality of the kit
Smooth operation of the shocks
Clear instruction manual
High quality diff operation
The very useful turnbuckle wrench
Balance through the corners and stability in a straight line, Smooth operation of the speedo, very efficient brakes
Sweet power band of the motor.

Dislikes

Self tapping screws - the 5 screws which hold the rear dust cover down and the 2 screws that hold in the motor in place have to be removed before you can take the motor out.