

◀ **Front wheels are narrower than the rear ones. The belt is offset and can run on stick or saddle pack.**

They say that lightning does not strike twice in the same place. Well in my case I have been fortunate, it has. It was exactly two years ago after the World Championships at Romsey in Hampshire that I was given one of the first "Mids" to review. I in fact had had the opportunity to test my "Turbo" version against a standard one that Wayne Darwell (son of Airbrush) had obtained from Japan. The "Mid" had been one of the most eagerly awaited cars in the history of model car racing, especially after the debut of hand built ones and their success at the Worlds. Time has moved on but things have not changed a lot as exactly two years on just after

Jim Crabb reviews Kyosho's latest 4WD racer, the Lazer ZX10. The car for the 90's.

# KYOSHO



# LAZER ZX10

the World Championships (this time held in Australia) I have the new "Mid" to review.

Everybody without exception has called this car the 'New Mid' and that in its own way is a compliment as the Mid has proved very successful, both in numbers of cars sold and on the track. At club

level it has proved very forgiving as both beginners and experts alike have taken to the car. Its reliability, strength, performance and ease of maintenance have suited all abilities. My own view is that it is still one of the best all rounders available, but at very top level it can be a little stretched, so what about the 'New Mid'? First and foremost it is not a new 'Mid' it is a totally

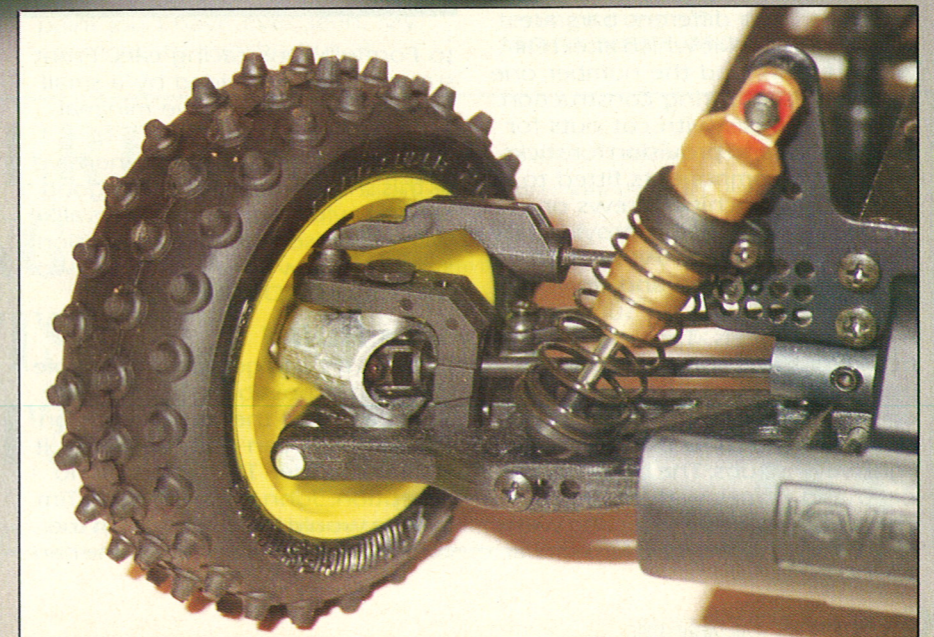
### Technical Specification

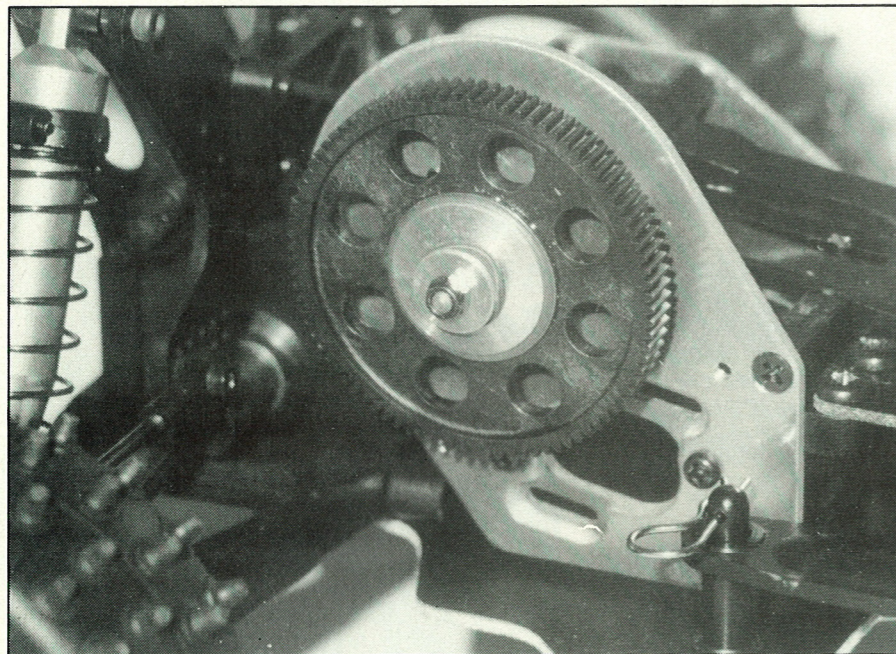
The car is supplied with neither a motor or a speed controller leaving the driver the choice of fitting existing equipment he may possess, or new equipment which suits his pocket and ability. A mid mounted motor drives a spur gear of 48DP which, via a central ball differential and one way roller clutch, drives two fine pitch narrow, lightweight belts. The longer of the two belts drives the front geared differential and protection of the belt is catered for by totally enclosing it in an 'A' frame made of black plastic. The shorter belt drives the rear diff, protection to both components is provided by a totally enclosed gearbox. Suspension is fully independent with very robust and extra long single wishbones (the front ones are particularly long)

new car and must be viewed that way. The only things it shares in common with the "Mid" are the knuckle arms, the king pins, the front and rear diffs, the dampers and a few odd screws.

The Lazer ZX10 is an improvement all round on the Mid, but two major components which would have been difficult to improve upon (the shock absorbers and the diffs) remain, so you can see with only two significant major components from the "Mid" it is a totally new car.

◀ **The front suspension is very robust with cut away on upper link for increased suspension movement.**





Large spur gear with slipper clutch and motor heat sink backing plate.

made of glass reinforced plastic (G.R.P.) for strength, light weight and extra long wheel travel. Damping is provided as mentioned before by Option House Gold oil filled coil over shock absorbers which, unusually for Kyosho, come ready assembled except for the addition of the volume compensating cap and oil. Camber angle adjustment is provided by adjustable upperlinks on both front and rear wishbones. There are 10 positions for the upper link to be positioned on the rear shock mount tower and 12 on the front, so advocates of R.I.S.E. (Roll induced steering effect) are well catered for. Ground clearance of the car is adjustable both front and rear by using the different location holes in the wishbones or different location holes on the shock mount tower for very fine adjustment.

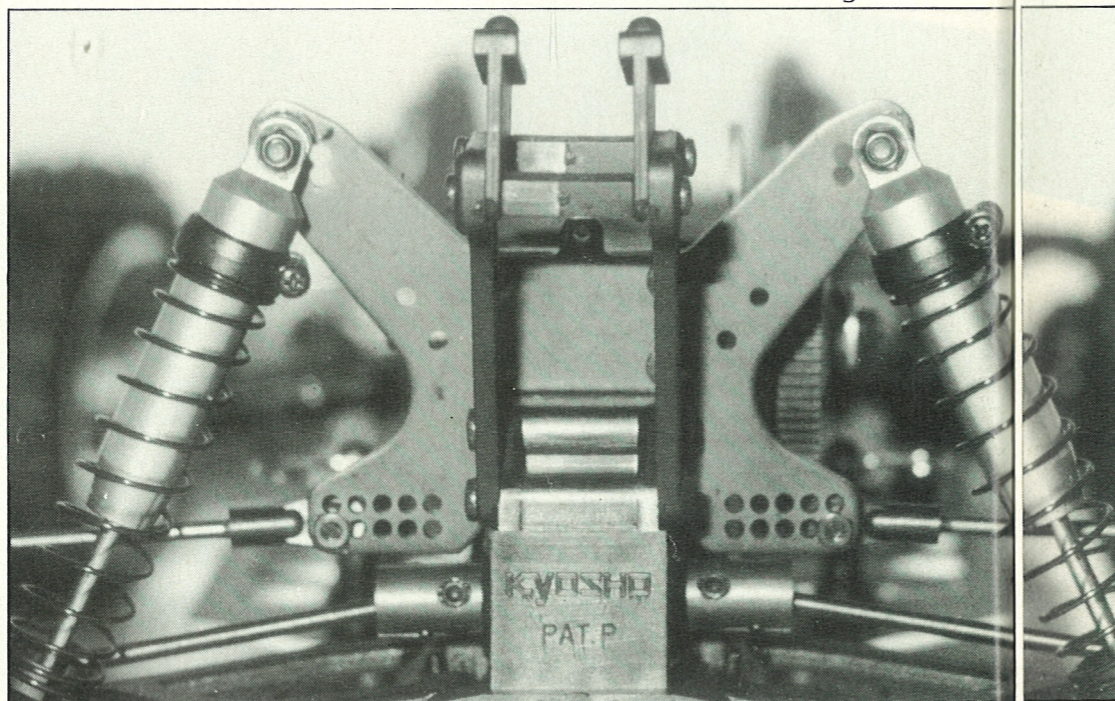
On the rear suspension there is a choice of two height positions for the hubs. Two different bars are provided in the kit which alter rear wheel toe in, and the number one bar was used during construction. A G.R.P. chassis with cut outs for saddle pack and provision for sticks has all the components fitted to it with either machine screws or self tappers, rigidity being provided by a G.R.P. radio plate. All bearing points are ballraced and universal jointed driveshafts are supplied for the front wheels. Tyre size differs between front and back (smaller ones on the front), they are a conventional low profile high grip semi spike fitted to one piece lightweight hubs. The body is quite deep and comes with undertray. The rear aerofoil is interesting with respect to it having two foils similar

Japanese instructions (those on sale in the UK will of course have English ones), I thought it would be a good test to see how he would manage to build such a complicated car by just using the pictures.

With care construction was completed without many problems. Having now seen the English instructions the written explanations would have overcome the problems we encountered, especially with the one way roller clutch.

### Construction Tips

It is quite a complicated car to build so don't rush, the dampers are almost complete but not quite, so ensure the volume compensating cup is fitted in each one. If you like more than normal rear end grip use rear toe in bar No. two during



to Formula One racing cars. Front suspension is provided by a small bumper which will give minimal crash resistance.

A specification as comprehensive as this should make for a very good car and avid readers and racers alike will recognise that the transmission system is now very similar to two other top 4WD contenders.

### The Build

I always try and get as many people involved as possible when I review a car, as I feel the more views on the subject I can get, the better it is for the reader. The Lazer was no exception. John Halstead's son Tim said he would like to help with the construction of the car. As mine had

Plenty of dialability on the rear suspension, only two screws need to be removed to adjust the rear wheel toe in.

construction — I used No. one.

The only non ballraced bearing points are the steering fulcrum (8 x 5mm) and the gearbox layshaft (8 x 4mm) both are optional and I did not feel it was necessary. The front and rear differentials are assembled and have grease in them so there is no need to open them up. E clips are used at several places in construction and although there are spares I always assemble these parts inside a polythene bag so if they do fly off you don't spend hours searching for them.

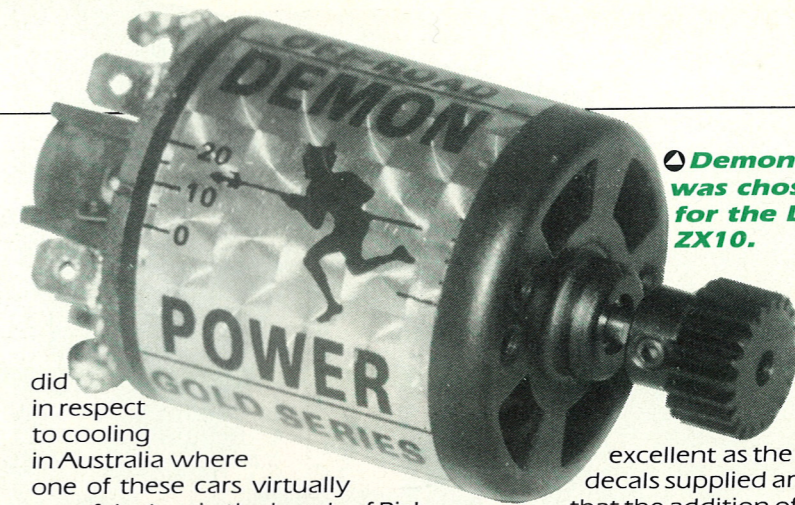
### Power & Control

With no motor in the kit, I thought it a golden opportunity to try out one of the new Gold series (excuse the pun) from Demon power. The motor chosen was a 16 turn wet magnet quad which proved to be an ideal choice and an excellent motor. If this motor is a normal example of Demon power then there will be a lot of these gold coloured motors about this year.

The speed controller was a problem, should we go for one with reverse or not? For normal club racing I think it an advantage to have reverse but as Tim Halstead had expressed his wishes to race this car in the Nationals this year we decided on forwards only. The one we chose was the Nosram International which is quite a bit smaller than the Exterminator which is the reverse version. The Exterminator will fit but it is a very tight squeeze. Any of the servo size speed controllers will fit in very easily.

### The Body

It is a much deeper body than usual from Kyosho although it retains the classic shape we have now got used to, being similar to the "Ultima Pro" and the "Mid". The shell is high quality and of constant thickness. It fits over the undertray and is sealed with Velcro to give almost perfect weather protection. The weather protection aspect has been well thought out as the undertray is recessed to accommodate the Velcro. If we have another hot summer like the last it may be necessary to provide some cooling holes to assist with keeping the working parts cool, and the same advice would apply if the car was being run in hot countries. I don't know what they



Demon power was chosen for the Lazer ZX10.

did in respect to cooling in Australia where one of these cars virtually out of the box in the hands of Rick Hohwart took overall 3rd place in the 4WD 'A' finals.

When it comes to a paint job there is only one person and that is Pete Darvel who is better known as Mr Airbrush. Anybody who has seen the bodies that Mr Airbrush did for Kevin Moore to take to Australia will know what I mean. If you go to any of the major meetings this year look out for Wayne Darwells car and the face of a dog on the top surface. I asked Mr Airbrush for any tips that I could pass on to us mere mortals. "Easy" said Pete "just think out very carefully what you wish to portray on your body shell on the outside and then follow it round on the inside with the airbrush". I decided there and then the next time I painted a body it would be in plain colours.

Peter and I have been disappointed with some of the paint jobs which have had a lot of publicity in the magazines and also concurs winners at various meetings we have attended. Our particular dislike is flames that look like stunted sausages painted red and yellow. Peter has painted the car to look like a Peregrine Falcon, and it is without a doubt the best paint job I have ever seen. My apologies to Kyosho but as

excellent as the decals supplied are I felt that the addition of even one would spoil the car. I said to Pete that with Easter coming up he could have made it a chicken design. "You are EGGsasperating" said Pete. I replied with "You must be YOKEing". We thought the conversation was becoming silly and just hoped that the photographer John Halstead would be able to do the body justice — especially the falcon's face which is a work of art.

Kyosho are using a new technique for making their bodies with an eight part mould so it is possible now to have some inverse curves. The lower of the two aerofoils on the rear wing is held in place with two sided tape and makes the car look good. How effective it is will only be revealed by removing it when testing. Not something that will be done as the paint job would be spoilt.

### Track Testing

The gearing supplied is far too high for use with a modified motor so we opted for a 15 tooth pinion. No doubt the 20 tooth pinion supplied would be more suitable when used with a standard motor.

At this stage the car looks very good, and I am looking forward to testing it in earnest.

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