

# TAMIYA

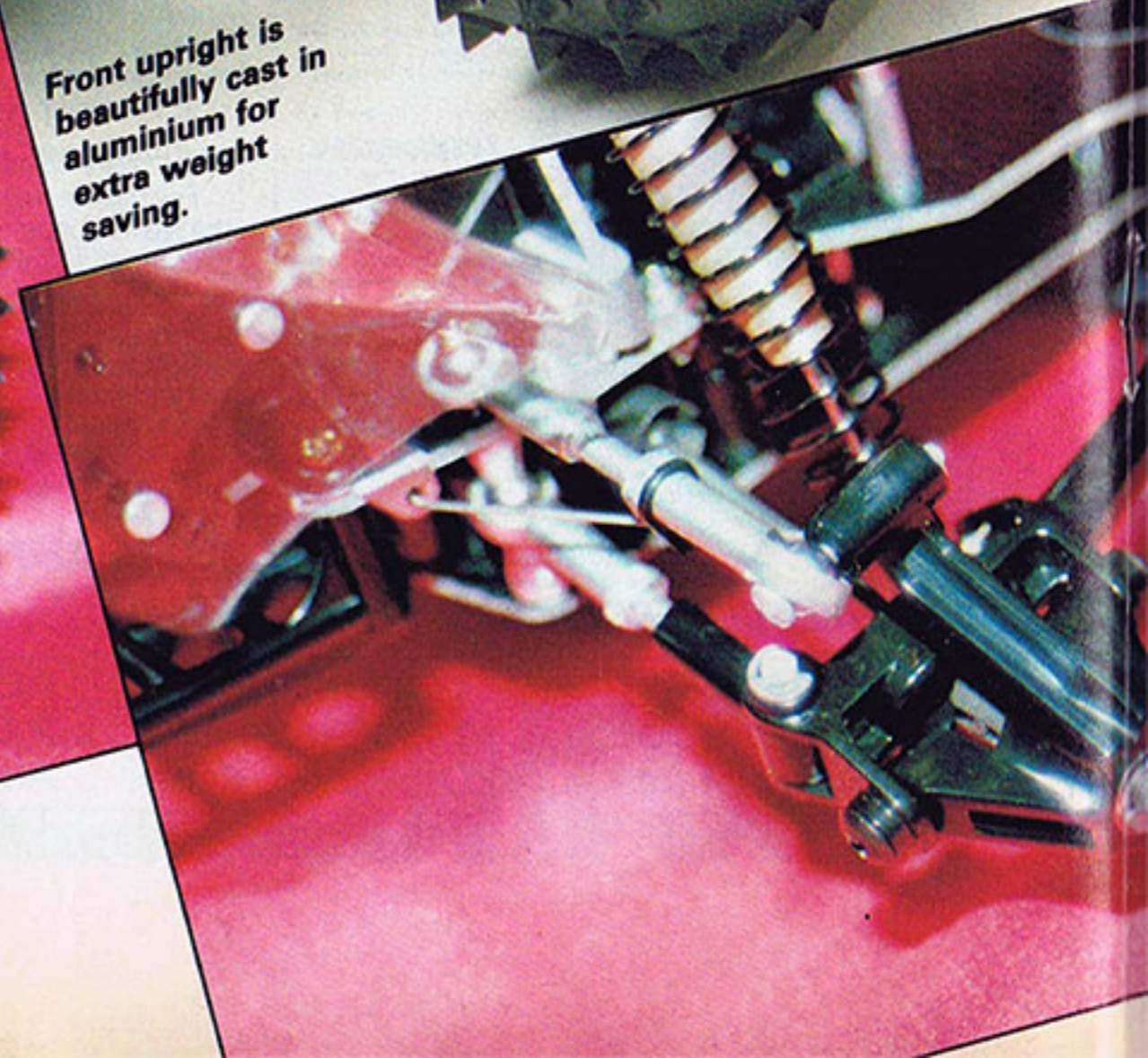
# AVANTE

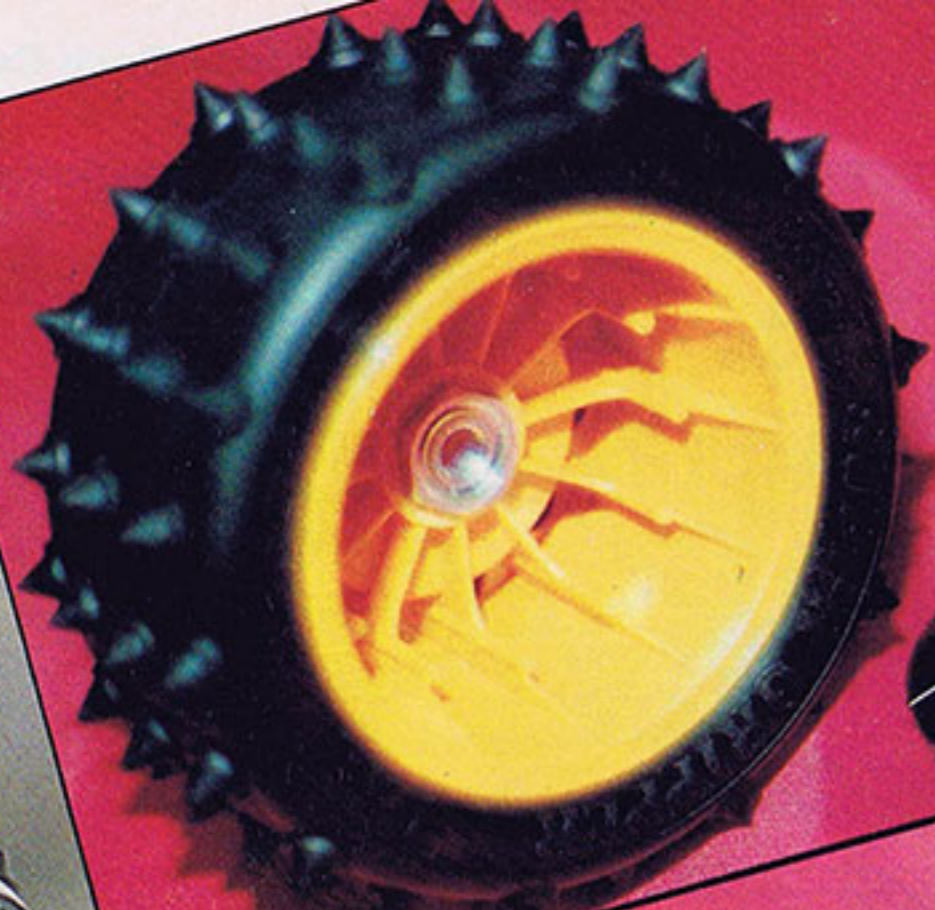
The latest 4WD from  
Tamiya is reviewed by  
Dave Pearson.

# 4WD

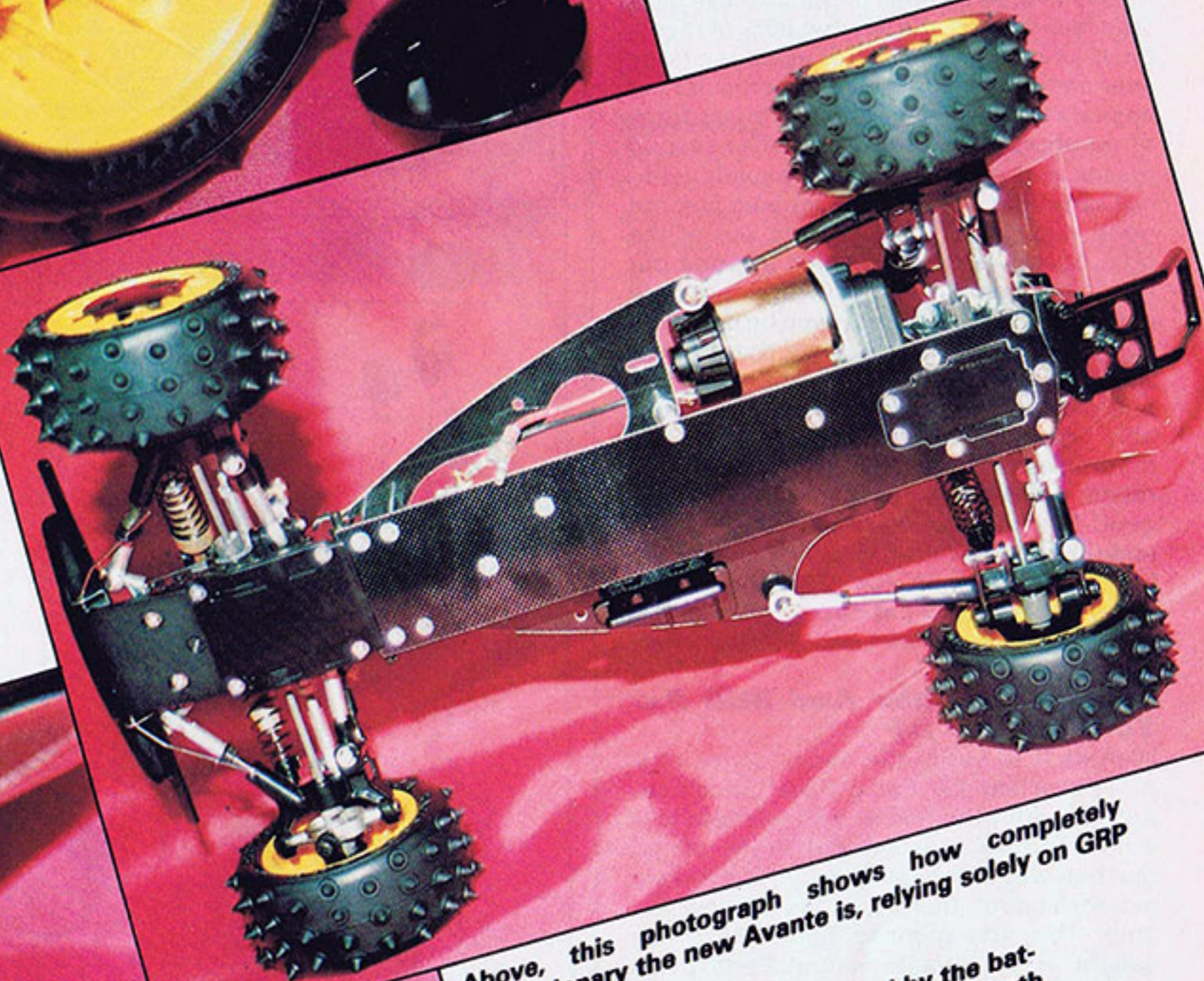


Front upright is  
beautifully cast in  
aluminium for  
extra weight  
saving.





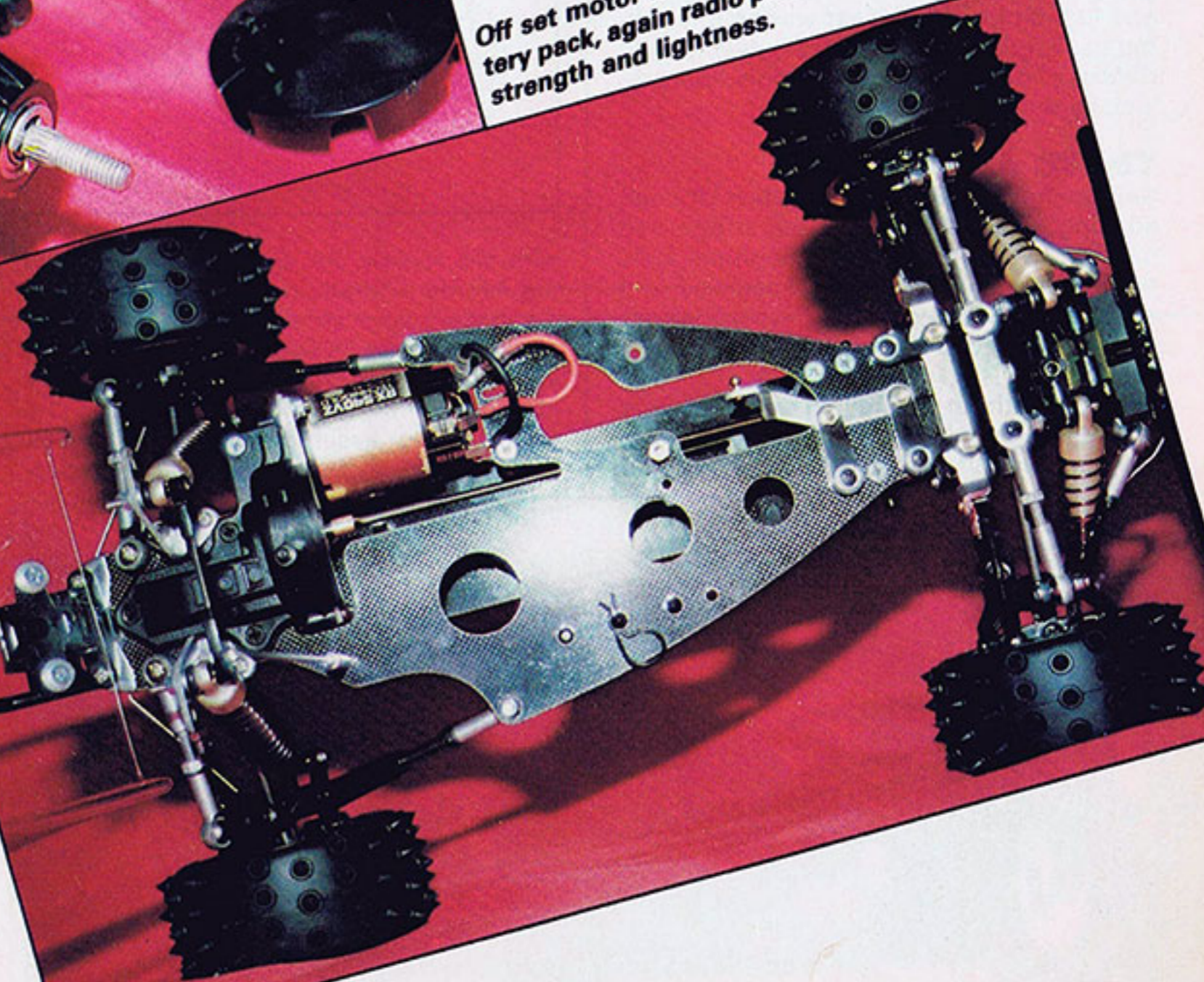
New Tamiya cam lock wheels are efficient and quick to get on and off, note new hexagonal boss.



Above, this photograph shows how completely revolutionary the new Avante is, relying solely on GRP for the chassis.

Off set motor is counter balanced by the battery pack, again radio plate is GRP giving both strength and lightness.

Left and above, suspension borrows heavily from formula one cars of not so long ago, note those beautiful rose joints.



Somewhat ago Radio Race Car reviewed Tamiya's Thundershot, what we said was that although the car was good, it did not have the all conquering attributes that in our opinion would make it a winner at national level. The reasons we gave for this were twofold, one, the car was not regarded as "the car of the moment". What we meant by that was simple to understand and merely a mathematical equation, if you have, as so often happens these days "the fashion car" the car that 80% of racers must have, then the law of averages takes over and the reason why that particular car appears to do so well is that by sheer force of numbers alone it can't fail. The second reason was a little harder to explain without upsetting anyone, the car was just not good enough, at least straight out of the box. Again we did take pains to point out that if someone like Mark Chaplin got hold of the car then things may well be different, again this was meant to state that the potential of the Thundershot, should someone wish to exploit this reserve was probably immense. Events at club level since that release have proved both those statements correct, the car is good, very, very good but because there is nowhere near enough top class drivers using it and as we have just explained that phenomenon the statement does not need any further clarification, it will never be a national event car!

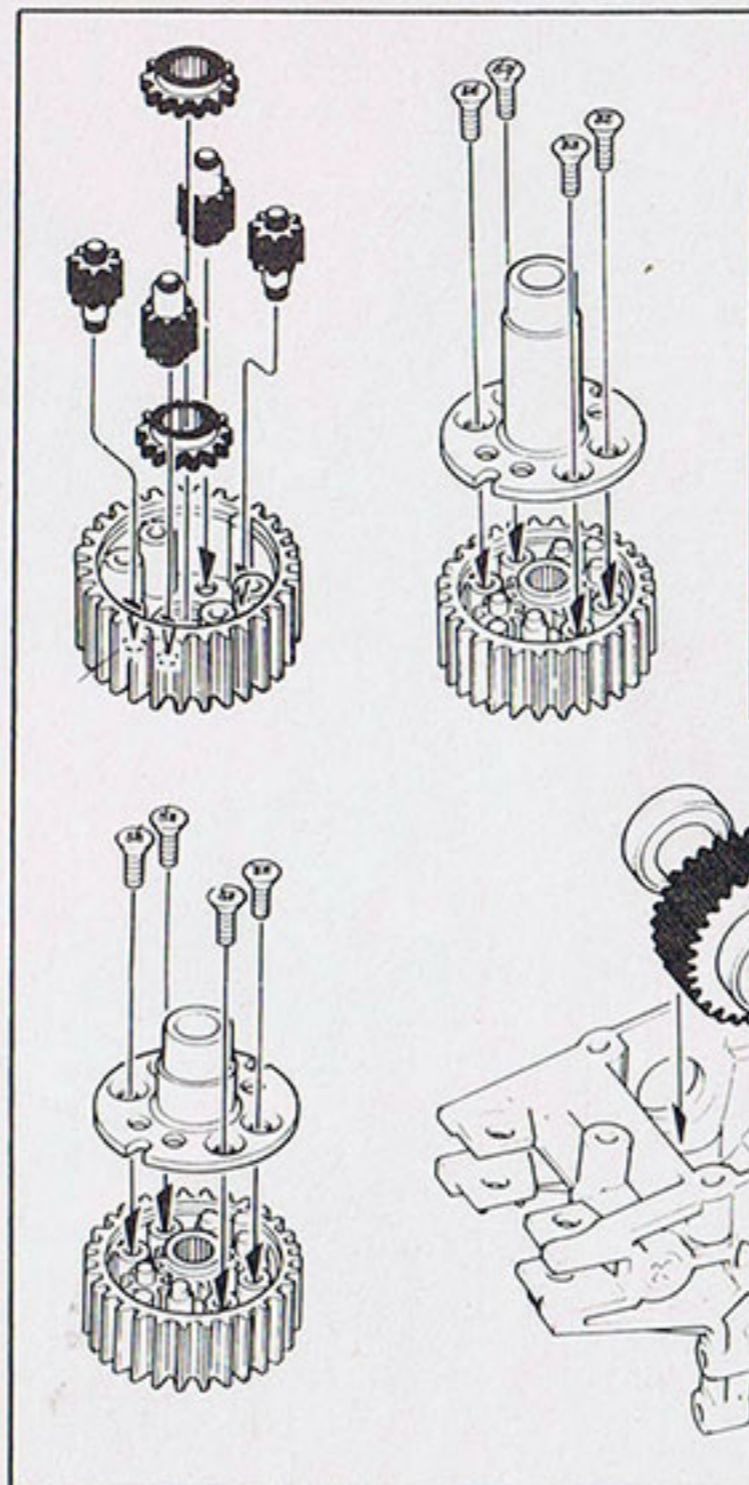
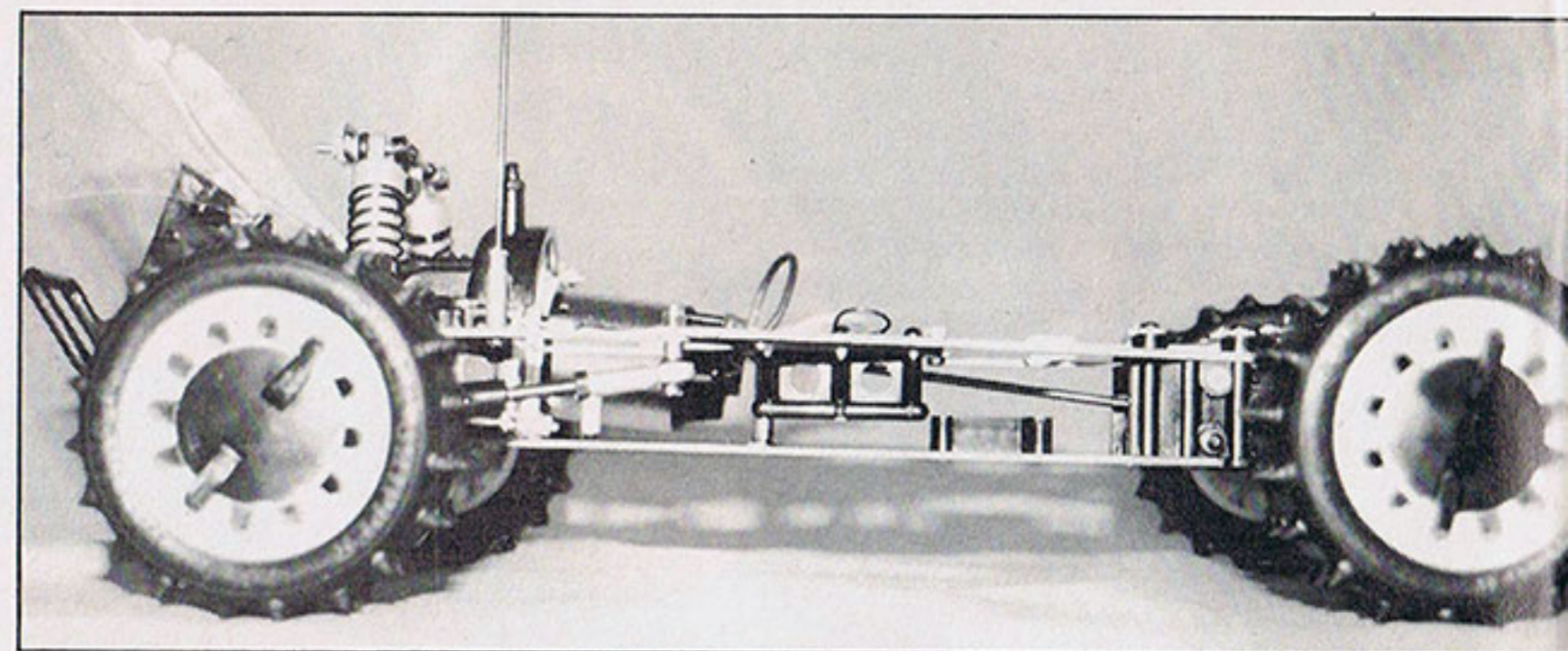
#### **Ever Been Right And Still Put Your Foot In It?**

Well as if to verify the above comments, news reached the Radio Race Car offices not long after the review was released that a new Tamiya supercar was in the offing, one that was in the category of "fashion car extraordinaire" that car is the all new Avante. The first glimpse Radio Race Car caught of the Avante was at Earls Court earlier this year, it caused such a stir that we could not get close enough to photograph it for some time. Eventually we did and found out why the car was so interesting to so many people, it was indeed totally different to anything that Tamiya had previously manufactured.

#### **The Kit Arrives**

Seldom has the arrival of a review kit been so long awaited, both by our office and judging by the amount of telephone calls the race car public at large, it seemed as if everyone wanted to know when, where and how they could get hold of the new Avante.

It goes without saying that the kit artwork and packaging is to Tamiya's high standard, so that bit out of the way let's get on

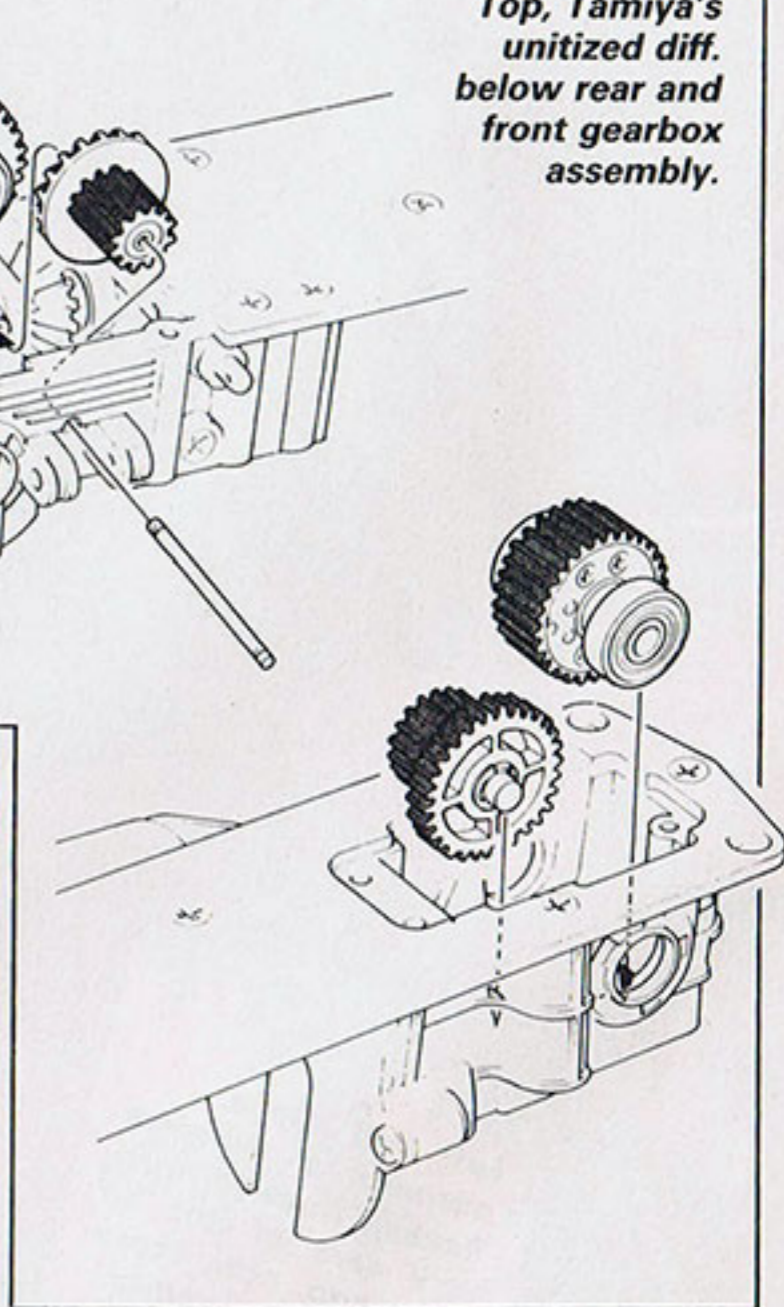


with the review. As we have already said the Avante is totally new, even different in its design, so it should come as no great surprise to anyone that the building stages as well as some of the methods used are also different. Assembly begins with the motor being assembled to the, as yet, empty centre diff and rear gearbox hous-

*This view shows just how space effective the new Avante is, the daylight bits house the nicad.*

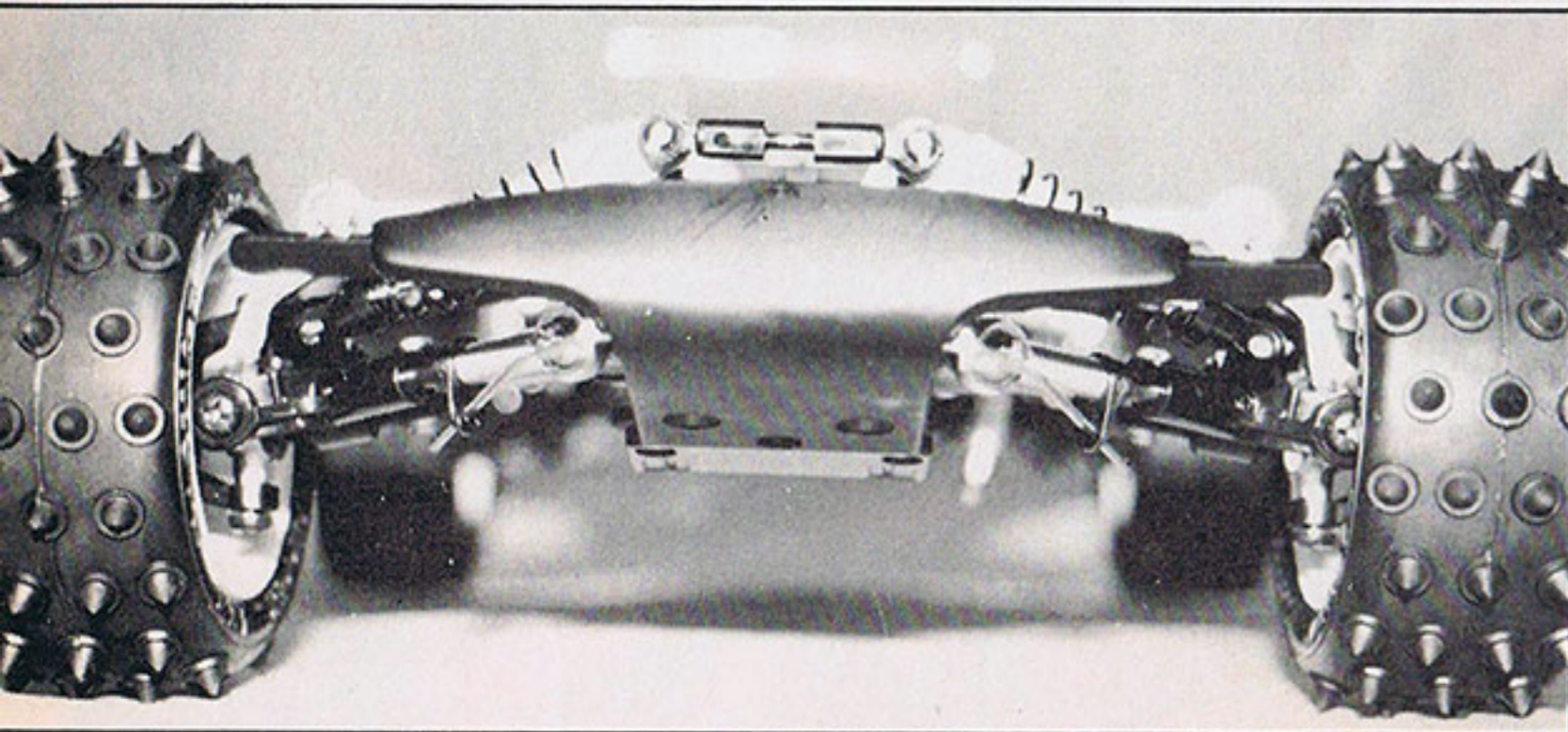
ing, this is then put aside and the front gearbox case assembled making sure that any bearings that should be in place are! Front and rear differentials are assembled next, this is where you begin to realise that you are assembling something completely different. Both diffs are what Tamiya refer to as "Unitised". Instead of the diff being the normal planetary type the whole unit is contained within the final drive gear in a very novel way (see diagram) the rear and front gearbox is then assembled through the bottom of the gearbox, sounds strange

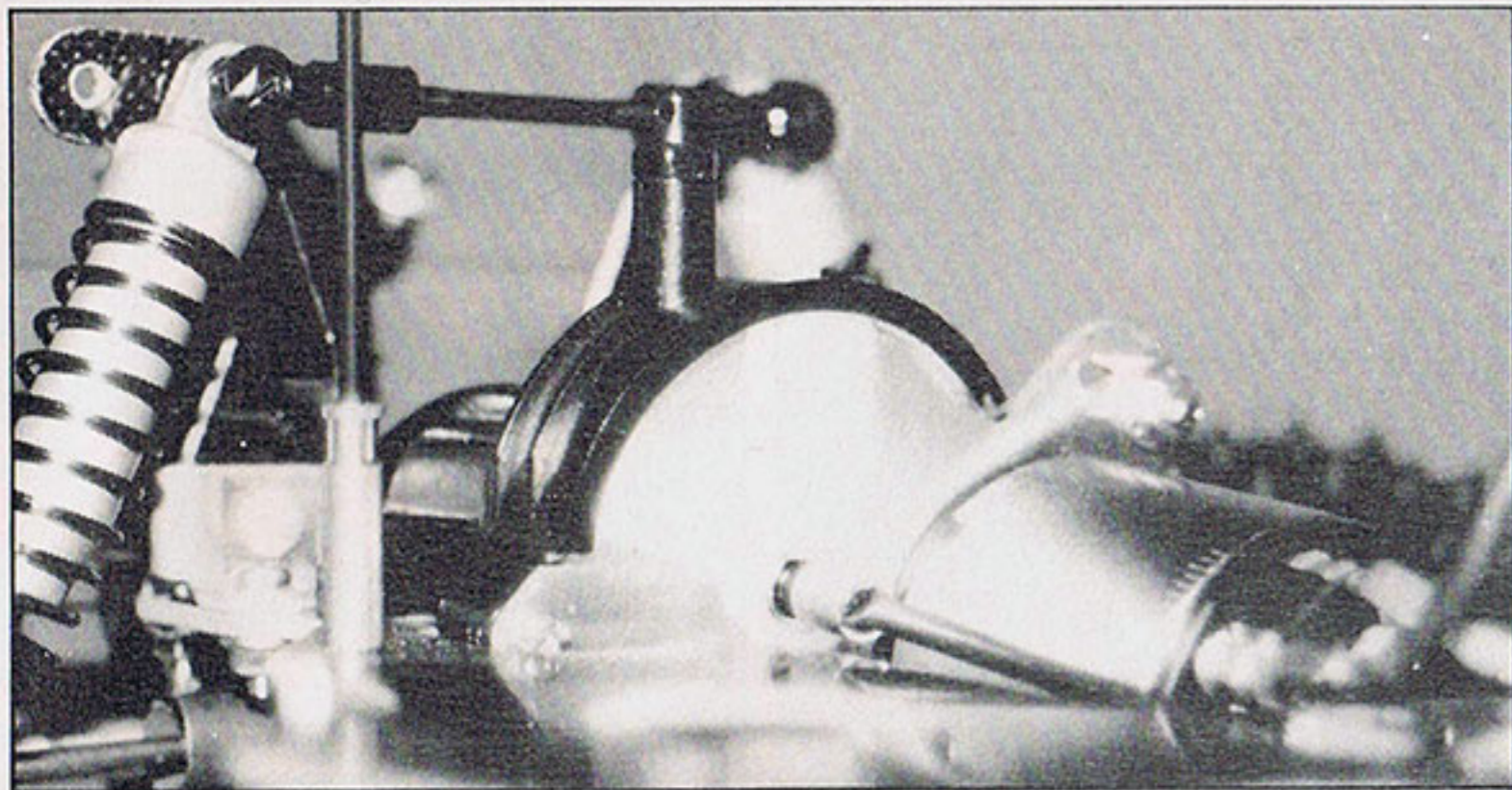
*Top, Tamiya's unitized diff. below rear and front gearbox assembly.*



but it is in effect a very neat, effective and quick way of inspection and routine maintenance. Centre diff is next, Tamiya have opted for a ball differential at this point in an effort to distribute power efficiently and evenly throughout the power train, a drive shaft then transmits this power to the front wheels.

*New Tamiya spike tyres look as if they would grip in any conditions.*





*Heart of the Avante the ball centre diff. transmits power exactly where it is needed most.*

sion. This when coupled to a degree of built in anti-squat should give the car extremely good road holding and handling characteristics. Again, the rear end of the Avante is extremely adjustable to give a range of settings to suit all surfaces. Roll bars are provided both front and rear, but unfortunately seem to provide more in decoration than fulfill any functional purpose.

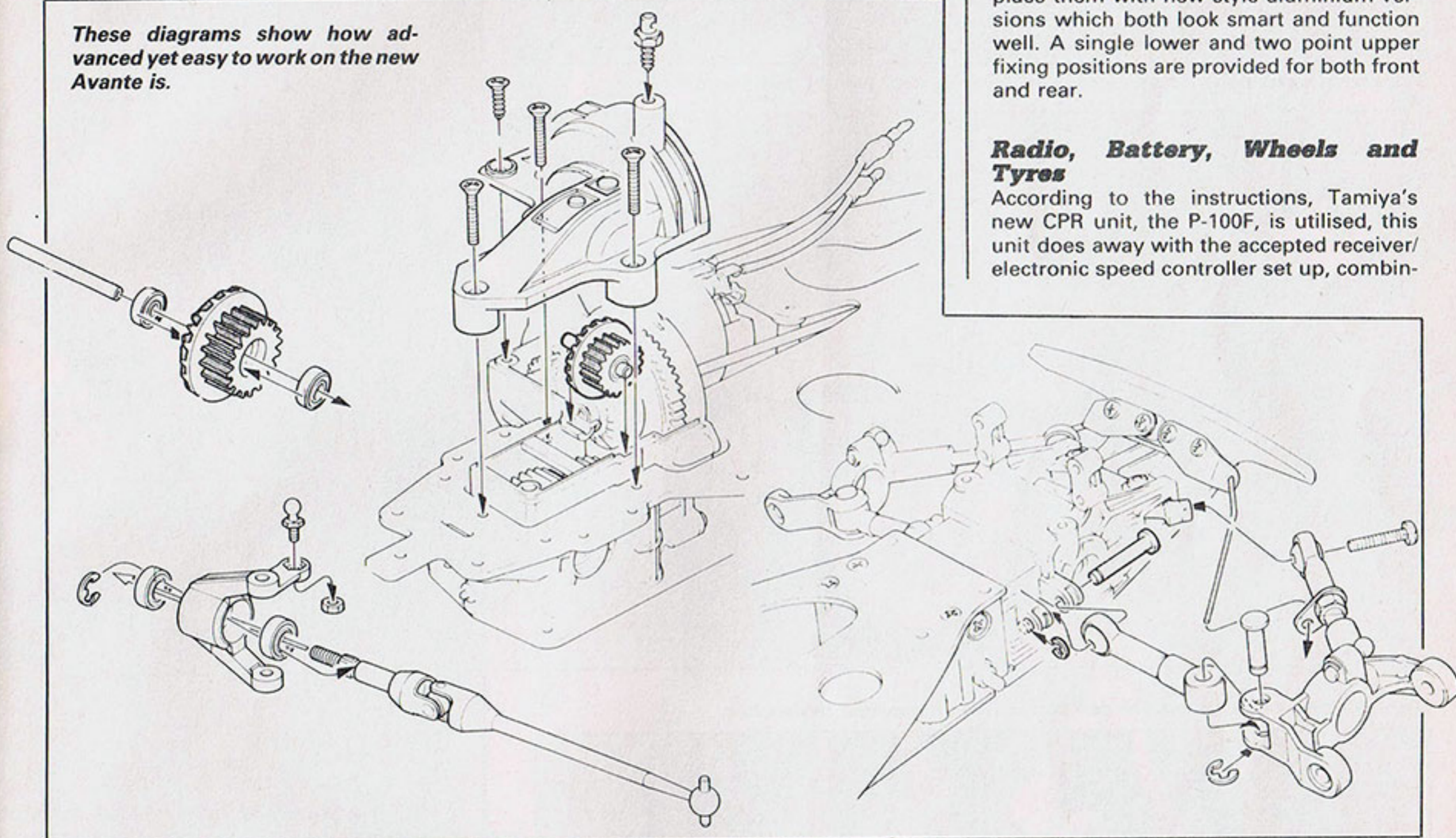
### **Shockers**

Once again Tamiya have provided new parts for the Avante in the shape of shock absorbers. The new shock absorbers retain the older type CVA inners, but do away with the plastic damper cylinders and replace them with new style aluminium versions which both look smart and function well. A single lower and two point upper fixing positions are provided for both front and rear.

### **Radio, Battery, Wheels and Tyres**

According to the instructions, Tamiya's new CPR unit, the P-100F, is utilised, this unit does away with the accepted receiver/electronic speed controller set up, combin-

*These diagrams show how advanced yet easy to work on the new Avante is.*

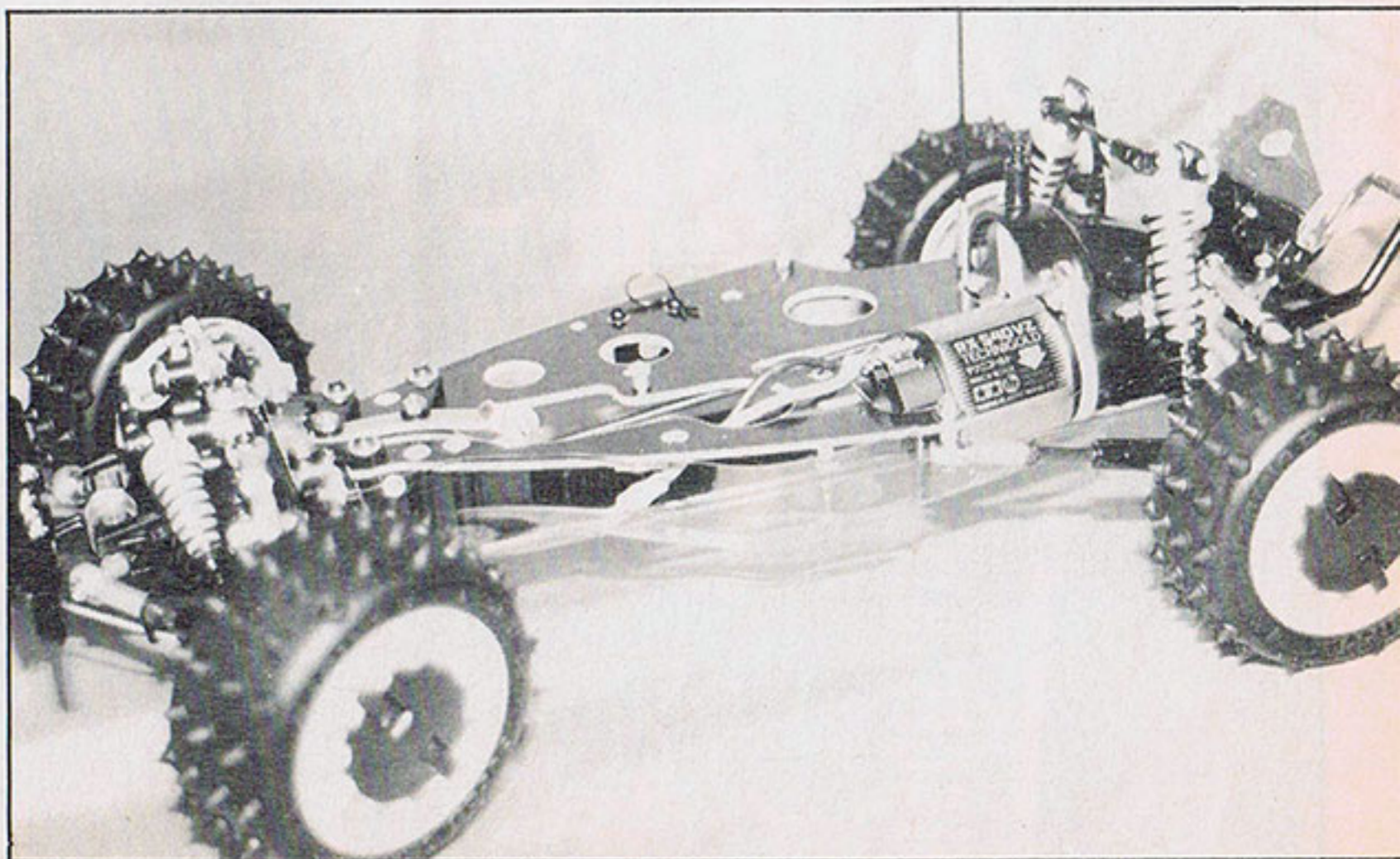


### **Suspension**

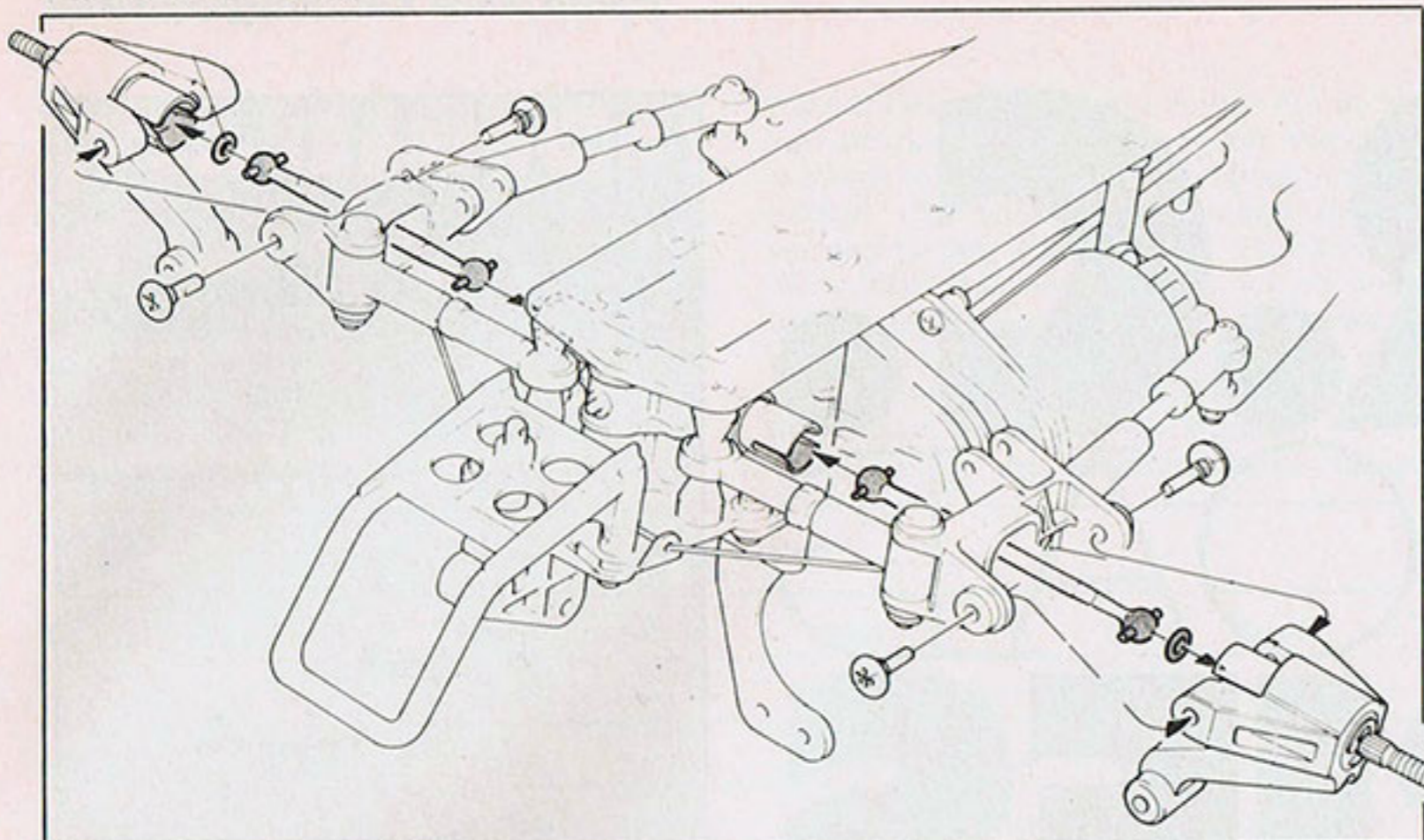
Again Tamiya have totally redesigned a suspension system for this car, rather than borrow one from another car in their range, something they have been criticised for in the past by certain people. The Avante suspension is set up around what are called rose joints, these joints give an amazingly strong yet flexible suspension set up. As a point of interest most full size off road cars today and indeed formula one cars of not so long ago used this very set up, the last point worthy of note is that by using rose joints, they not only make the suspension strong but by their very nature they make it infinitely adjustable, allowing the car to be dialled to perfection.

The rear suspension uses the same system but employs further technology gleaned from the formula one circuits of not so very long ago, that of a trailing arm rear suspen-

*Tamiya supply the Avante with an under-tray, one piece of equipment that is vital to radio gear protection.*



*continued on page 53*



This diagram shows clearly the trailing arm rear suspension, this arrangement gives a greater degree of stability to the car.

ing the two in one neat, small plastic box. It is not essential that the P-100F unit is used though as there is plenty of room to fit just about any of today's modern receivers and speed controllers under the Avante's body shell.

To counter the offset motor, the Avante's battery pack is also slung to one side running longitudinally between the radio plate and the battery. This arrangement seems to work well as the car does balance around its centre along both axes. Removal and installation provides no problem.

Wheels both front and rear are the new cam lock variety, in short what this means is that the wheels screw into place on the

stub axle and two clips then fold down into cutaways locking the wheels into place, at first this idea may seem a little gimmicky, however, it does provide for spanner free removal of wheels and we all know the one spanner we can never find in a hurry now don't we.

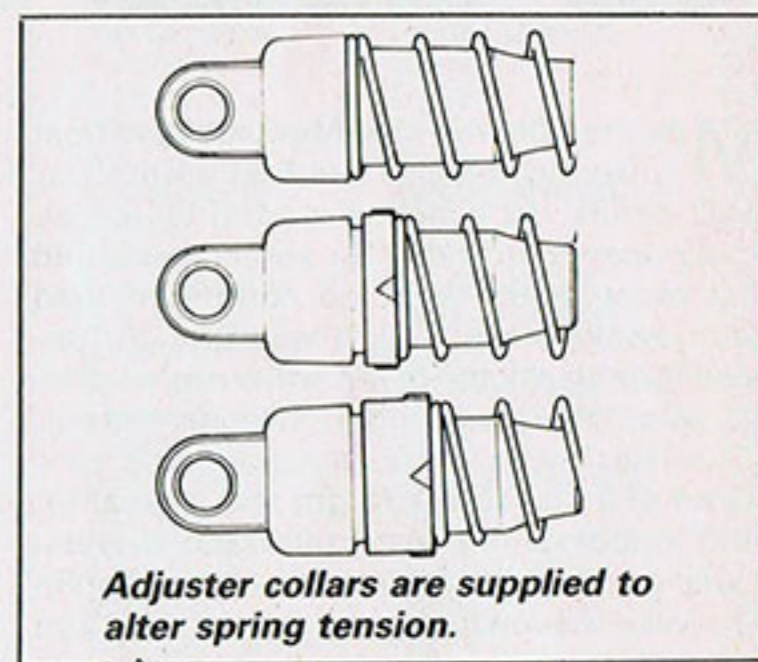
**Conclusion**

At this stage it is only possible to draw conclusions on what we have seen rather than on the car itself, the reason for this is simple, the car you see before you now is the Avante that we shall be giving away as the prize in our free to enter subscription competition.

So what do we think? Well, returning to

our opening statements, we do feel that the Avante could well become the "fashion car" of the late 88 season and for this reason it could do very well. After all there is lots of fiddle value with all those suspension points to adjust, the car looks a real head turner with its stunning bodyshell. From the pro drivers viewpoint, the Avante should be very dialable, again due to the advanced suspension and three diff system, the mid mounted motor and battery position should give the car good manners and allow the Avante to keep the advantageous tight line on/tricky infield sections. The Avante, if it follows in its forebears footsteps should provide a good, solid, dependable racing car with no insurmountable problems to overcome. If Tamiya are showing us the way into the 1990s with the Avante then the future looks good, however just like football "it's a funny old game you know" but let's keep playing!

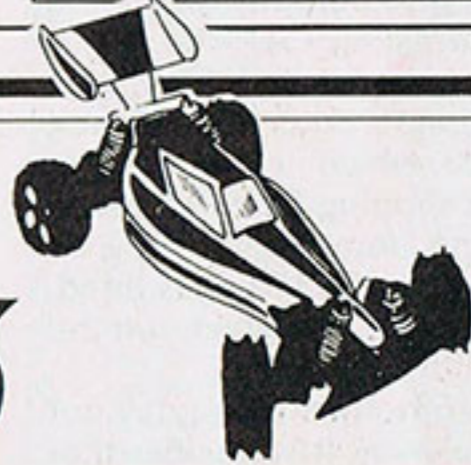
Available from Tamiya dealers everywhere.



Adjuster collars are supplied to alter spring tension.



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