

AYK VIPER

4x4

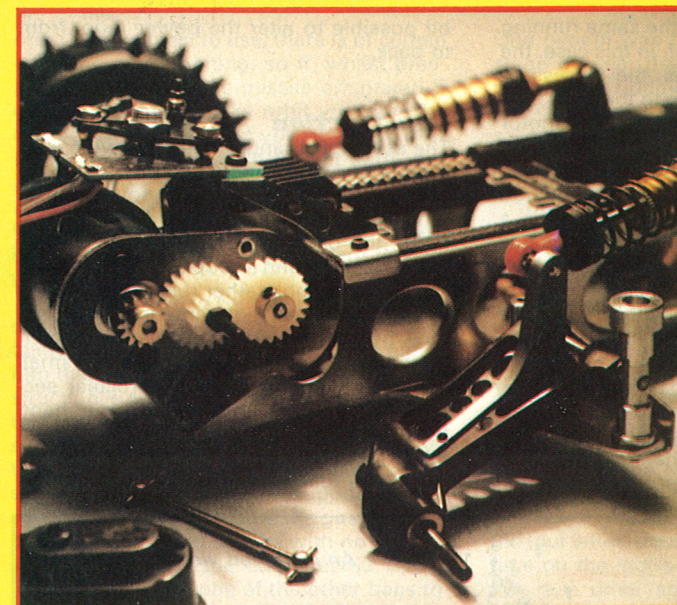
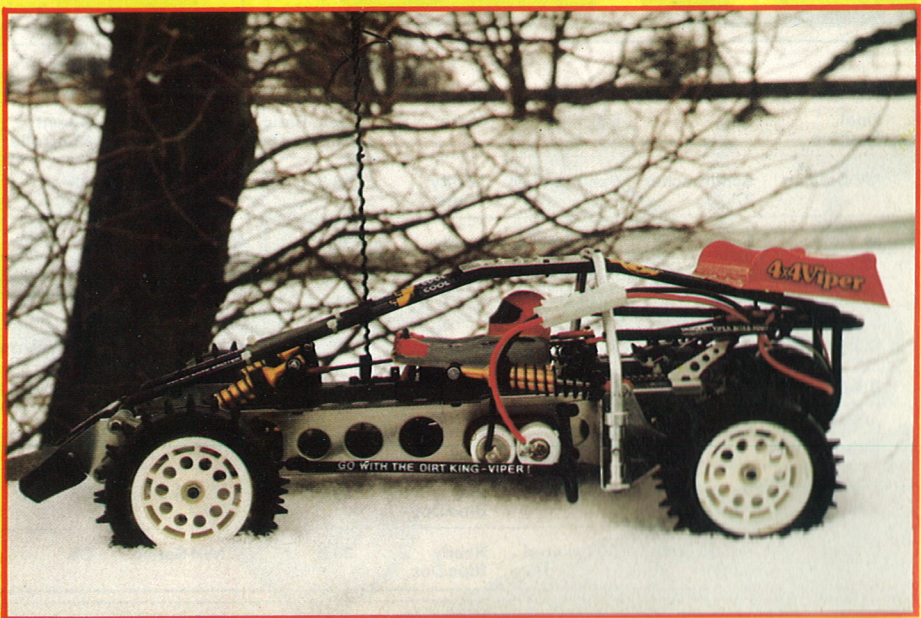
Mike Smith reviews the latest offering from AYK in off-road buggies

I ventured out of the Stockcar cupboard to do this one, "there was I thinking Mr Rumblin must be grumblin about writers cramp", but the truth of the matter is apparently everyone, including the kitchen sink, had flown off to Nuremberg for the Toy Fair, leaving your's truly holding the baby or fortunately in this case the AYK Viper.

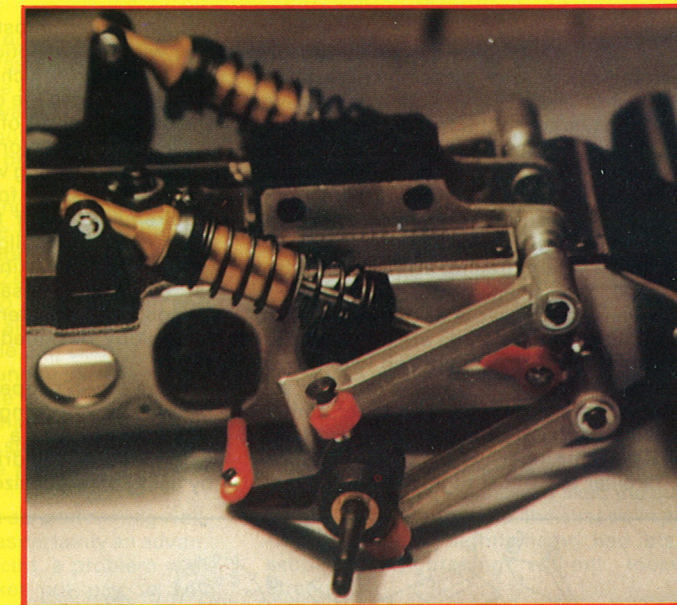
The beauty of receiving a kit to review is that it rids one of the nightmarish task of ploughing through the endless catalogues of cars currently offered, here was a car not of my choosing, with as yet no proven history, the box, very attractively turned out, was factual in it's claims, used no mind blowing trick photography and more importantly did not keep calling me the 1986 World Champion.

Before removing this resplendant box lid, I decided to set some sort of criteria, I expected not to have to spend an unduly long time in assembly, the construction would have to flow without having to finish what the manufacturer would not, there would have to be an insistence that if I did have to attack the Hoover dustbag looking for that elusive component, that at least the kit had it in the first place, I would expect the instructions to be relevant to the car in the box and not a hasty update on last year's model. When all construction was completed I would then demand reliability.

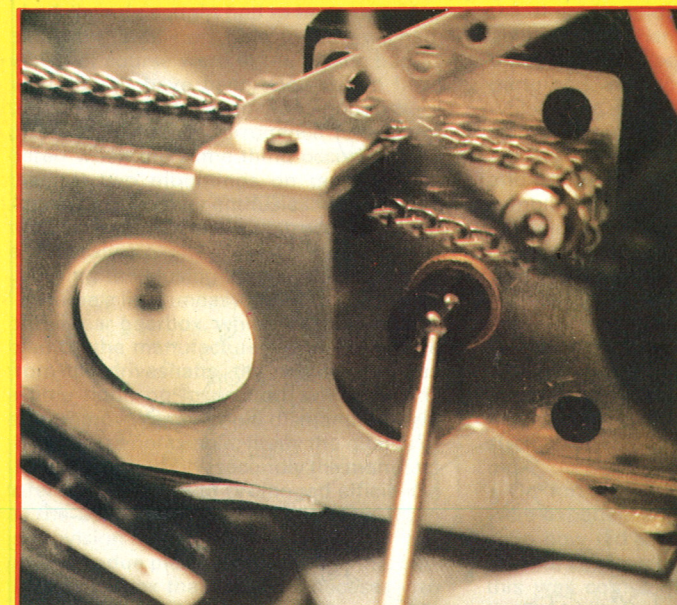
If the Viper and I got this far without falling out and I had the ability to become a noted success, then I would expect the car to complement my driving prowess on the road to stardom. By this time you may think I expect a little too much for my £119.00, then be warned RRC expects nothing more than value for money for its readers.



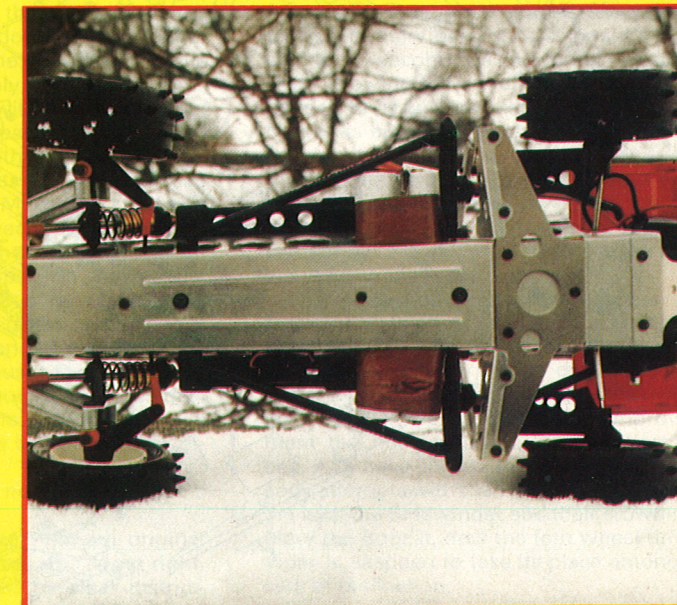
Easy access is available to the gear trains shown here, also notice speed controller mounted above.



Double trailing arm suspension is used at the front with oil filled shock absorbers. Semi trailing is used at the rear.



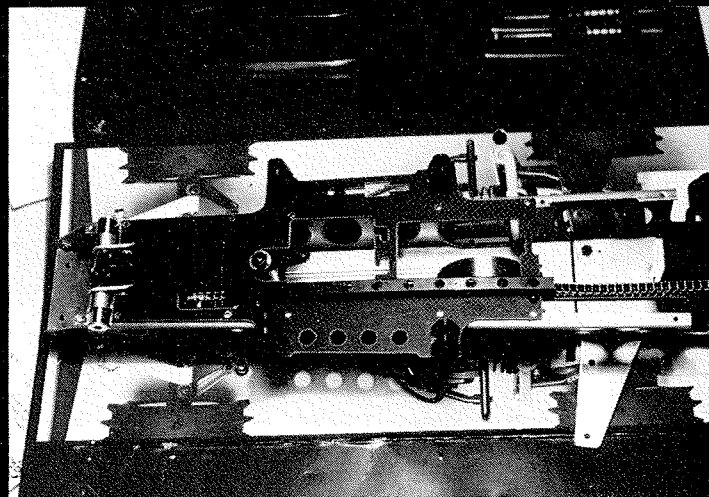
A very strong but light alloy monocoque chassis provides good protection as well as rigidity.



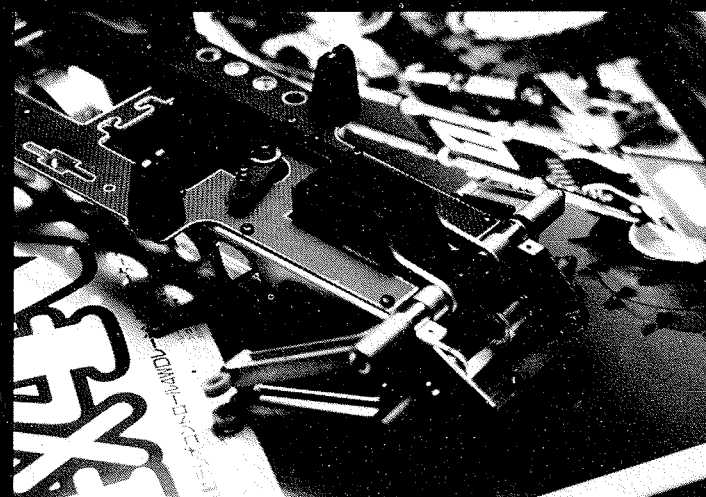
The four wheel drive ladder chain system is driven by a sprocket from the rear gear box.



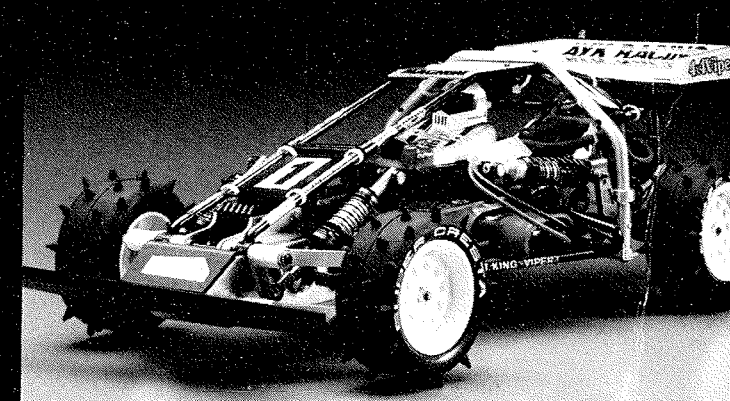
The unusual alloy monocoque frame chassis.



The tyres, ladder chain from above.



The front end suspension trailing arms.



The Viper, finished and raring to go.

In Brief

AYK's 4x4 Viper follows somewhat proven lines but has its own pleasing characteristics, it is a chain driven four wheel drive system, steering to the front wheels, differential gears, front and back, an extremely hard metal beam monocoque frame, the front suspension is the double trailing arm variety with shock transmission being damped by large oil filled shock absorbers, the rear is a semi trailing arm system, also damped by oil filled shock absorbers.

The look of the car is of the fashionable open roll cage type, there are no nicad batteries or radio system supplied with the kit and the speed controller is the servo assisted three speed type. The Viper comes unassembled, which is a detachment from the AYK forerunners, some of the parts will be familiar to Bobcat fans, mainly the rear

end, which uses most of the same running gear with the exception of, in this case, the rear gearbox which has the necessary sprocket to drive the chain to the front box. The same method of mounting the motor is also Bobcat fashion, or should I say Bobtail fashion, hanging well over the rear leaving plenty of space for all the other bolt on requirements. After this you depart on a completely new ballgame, the chassis has to be the most striking feature, making the car easily recognisable, this hard metal monocoque glistens with spaceage technology designed to be light and very strong.

There doesn't appear to be any restrictive reason for choosing chaindrive, perhaps AYK decided that a detachable link chain would outlive any driveshaft and of course by using different sized sprockets, it should

be possible to alter the power ratio, front to back.

Construction

The assembly manual starts by giving over a page of advertising to all the items you didn't get with the kit, this is not as bad as it may seem, first item being a two channel radio, the other items are a nicad battery pack, 7.2 volts, and a couple of fast charging systems that look rather run of the mill but are still accepted requirements. There is a blow by blow account of every move in construction complemented with a small exploded diagram of each particular section, also a large exploded plan is at hand to assist if you should require. The components for each stage are sealed in separate polythene bags, labelled in alphabetical

order with respect to use, there is of course only one of everything, so if, whilst presenting one of those missile orientated E clips, it decides to take orbit you are that component short. Mind you, if the kit provided spares you would be left with that puzzled look and a feeling that you had missed something out, the answer would be for the manufacturer to supply a neat plastic bag clearly labelled 'parts you are certain to lose'.

There was little to complain about during construction, the laid down format is certainly the one to follow, don't be tempted into thinking that the odd component or instruction is not where it should be, I fell into this trap when assembling the rear suspension arm guard. The diagram clearly shows two bolts attaching the arm guard to the shock absorber suspension support, it also shows bolt holes to secure the guard to the chassis side but no screws with no sign of screws in the plastic bag marked C, so foolishly ravaging one of the other bags to complete the job, seemed to appear the obvious oversight, that of course was until nearing the end of completion I discovered who was the silly Billy. The two screws that I had cleverly sought had to be removed to allow the side nerf rails to be attached, which of course were in the plastic bag as they should have been. One would have thought that this lesson was enough but I discovered that my arrogance had floundered when the same thing occurred with the last two mountings on the gearbox. Apart from this over enthusiasm on my part the remainder of the construction flowed effortlessly.

During the closing stages of completion I became a little uneasy about the workings of the rear gearbox, which was pre-assembled by the manufacturer. Under pressure from the driveshafts, the mechanism was a little tight, on inspection, which means easy removal and simple dismantling, two things were noticeable, firstly the quality of the whole assembly, secondly the manufacturers pre-thought to prolonged efficiency, as the bevelled gears begin to wear there is provision to install shim washers to take up any undue play, so precise was this particular gearbox that I found it necessary to remove the original shim washers to alleviate the pressure that was causing the problem, of course prolonged use would eventually have resulted in the same effect.

One benefit was that now I had one extra stage of wear than was previously anticipated, after ridding the car of this problem all that was really left was to give an appraisal and road test "Oh not forgetting to paint the little driver who is only half the man he should be".

The first serious outing had to be indoors, a failed attempt in the deep snow proved that off road cars are about as much use as a City and Guilds in Zeppelin building in conditions like that. So in at the deep end we went, booking in along with 40 other entries at one of Pendle and District Model Car Club's regular Sunday meetings. Organiser Richard Whittle made me feel very welcome as did the hard working ladies who never seemed to stop dishing out hot dogs and home made pies to the hungry hoards.

The first race had the car performing well, the four wheel drive was certainly an advantage on the indoor circuit, a problem with the rear drive sprocket put pay to any chance of stardom in this race, after messing with the rear gearbox I must have insufficiently tightened the grub screw.

A few more races proved the cars potential, there is no doubt that if you have the ability to win then so does the Viper. After a day's racing I became once again a little perturbed with not only the rear gearbox, which I had problems with in assembly, but also the front box appeared to be trying to tell me something. With all the rumblings and grumbings from its direction, off road rumblings wasn't in it. My first thought was I shouldn't have removed the spacing shims on the rear box, but what was the problem with the front, later inspection showed just how critical the differential gear spacing is, especially when working with quality of this standard. Both bevel and planet gears are made from steel, obviously designed to last and take all that this rigorous sport can dish out, adjustment to the settings is quite straightforward if not a little time consuming.

On further outings no more problems were experienced.

So how did the Viper meet our original criteria, construction time was about right, this was complemented by clear instructions, I built the car over a couple of evenings even with my fat fingers and short temper without turning the house into a battle ground. The reliability factor looks prom-

ising, although still too early to say, the cars race winning potential is virtually guaranteed.

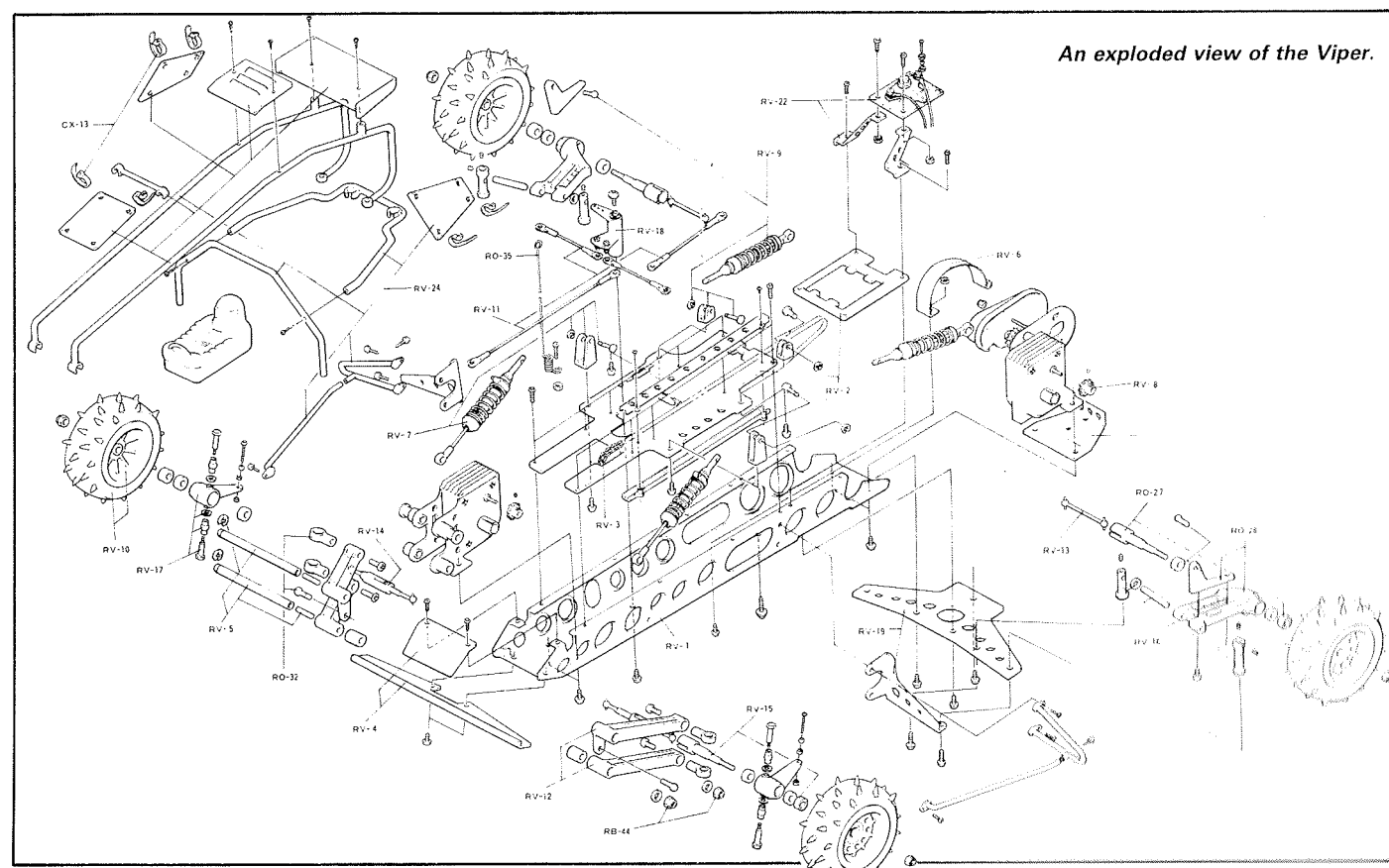
It is of course very difficult to expect a car to be 100% to your liking and the Viper 4x4 is no exception, on the bad side I didn't much like having to spend time on the gearboxes, which arrived pre-assembled. If the manufacturer thinks that these items are too difficult to leave in kit form then at least they should be tested and proved o.k. The copper band that holds the nicad batteries has very sharp edges and tends to cut into battery packs that have extra insulation, there was no means of tensioning the drive chain other than removing a linkage and the ride height of the front end was not adjustable.

As for the good points and these far outweighed the bad, I especially liked the quality of all the components, the chassis in particular, although slightly heavy had lots of scope for lightening without losing strength.

The car looks great, probably one of the most attractive off roaders yet to be produced "go with dirt king Viper" is the phrase used on the nerf rails, the reaction from my fellow racers suggests quite a few will be looking to the Viper. All cars should be designed to encompass individual development allowing the driver choice over what he feels to be an improvement, not dictated by trends but more of what actually works for him, this scope is in abundance with the Viper, although the castor of the rear wheels is permanently set it would not be too difficult to alter from negative to positive camber by re-drilling or shortening the rear suspension pillar supports.

The phosphor bronze bushes, although not as effective as ball races didn't seem to suffer any power loss, those who strive for perfection will no doubt wish to ball race all axles and diff bearings the result will obviously be a more reliable improvement but not necessarily a cost effective one. AYK have come a long way since their early attempts with the Trail Blazer, improving with the Sidewinder and their crowning glory the Bobcat, now the four wheel drive Viper is destined to take its place amongst cars of distinction.

Distribution through Irvine Engines Ltd, Unit 2, Brunswick Ind. Park, Brunswick Way, New Southgate, London N11 1JL, price £119.00.



An exploded view of the Viper.