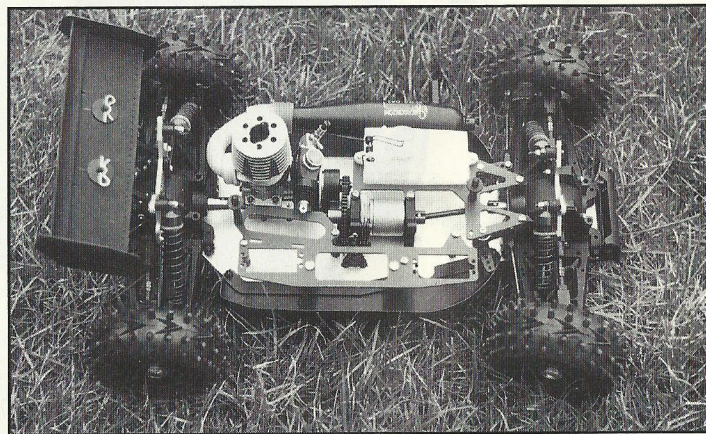
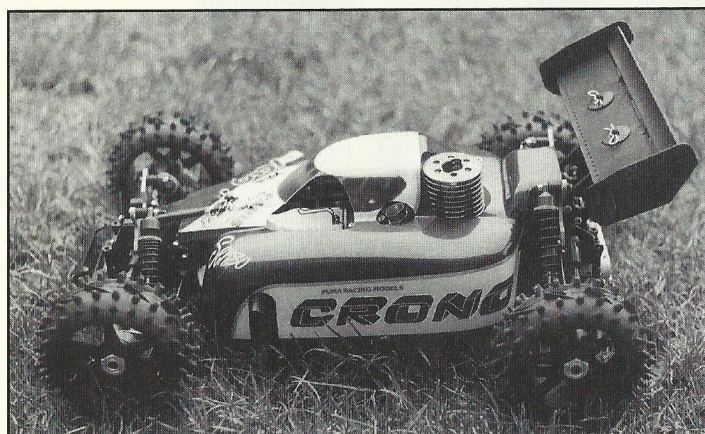


Super Crono



The next stage was completely new to me, a disc brake. Well there is a first time for everything and after laying the bits out it actually went together very easily. Two fibre glass plates are sandwiched between three steel pads, which just clamp the fibre plates when braking is required.

The three sub assemblies can now be bolted to the 1/8in thick aluminium chassis plate followed by the integral servo saver and radio plate mountings. You will

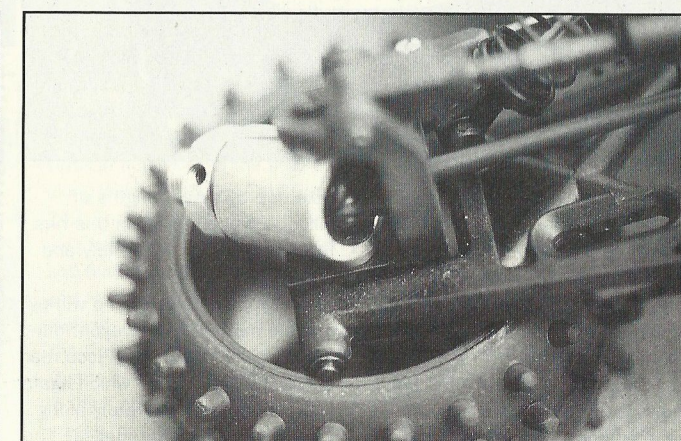
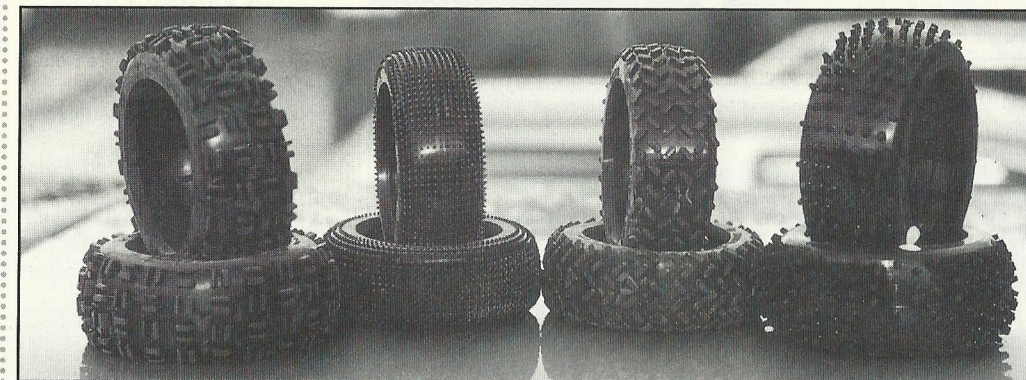
state filling this differential with silicone grease of a rating of 500,000cps, which actually comes in a tub, not a bottle. Forget pouring this in, I resorted to scooping it in with a screwdriver!

15°, 24° and 33°, so I played safe and went for 24°. This is attached to the rear gearbox by four self tap screws, and provides a secure mounting for the bi-aerofoil section rear wing.

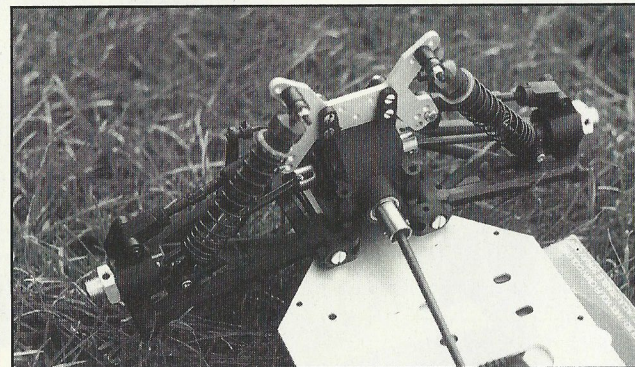
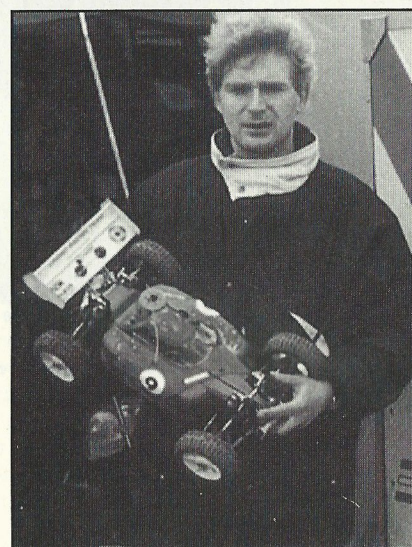
Next stage is the front gearbox and this is virtually identical to the rear, apart from the drive cup for the propshaft is at the other end of the rear gearbox. The differential at the front has to be set a lot stiffer than the rear, so 20,000cps silicon grease from Medial Pro was used. This grease is quite thick, but it can be poured (albeit slowly) from the jar. The front dampers are the same excellent design as the rear, only shorter, and with the rubber diaphragm giving constant volume their travel and rate will remain constant.

Front wishbones are again not handed so spares are not a problem. The front drive shafts incorporate universal joints at the axle end and I found it useful to move these a few times by hand as they were slightly stiff. Steering is achieved through pivoting hub carriers, these being made from cast aluminium and located via hardened pins. I would recommend Loctiting these in place as they could vibrate loose.

Both ends are now complete so its to the middle for differential No.3! All good 4WD vehicles have a centre differential and the Crono is no exception. The instructions



RCMC sent one time national champion Andy Benson to build and test run the gas powered Crono



The last time that I was involved with an engine powered model was when I glued it together and covered it with tissue and cellulose tape. So it was with some excitement that I picked up the latest review kit, a Super Crono Europa, a full 1/8th scale rally cross car, imported and marketed in this country by Puma Racing of Alcester.

Manufactured by SVM in Italy, the Super Crono is a 3.5cc engine powered 4 wheel drive off road kit with a very prestigious race history, having won the European title twice.

On opening the box, the first impression is that this is not a build Saturday evening, race Sunday morning car! Like all good kits, the components come neatly assembled into corresponding packages. There are a lot of bits in each bag, but not that many bags! The instructions are precise but are common for three languages, so all the assembly instructions are in diagrammatic form. Take

time to familiarise yourself with each component, what it is and where it goes and more importantly what it does.

The first assembly stage is the rear axle/gearbox assembly. The rear differential comes assembled, but does require filling with grease. No electric style ball differential here, but proper metal planetary gears running on polished steel shafts. The instructions do recommend that the rear differential is run loose, and 900wt oil is recommend. It is worth stating here that 1/8th cars do not come with oils as part of the kit (as in electric cars), so all oils must be bought separately. Puma Racing stock a vast quantity of Medial Pro

oils so choice is not a problem. Once the diff is full of oil, the main hardened steel crownwheel can be mounted onto the differential casing,

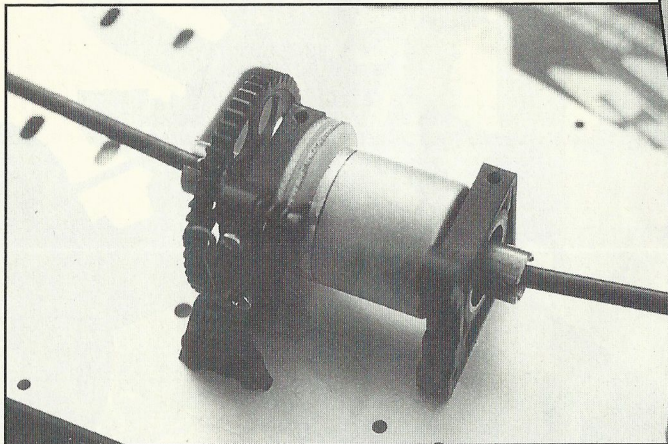
making sure it is seated properly and not forgetting to Loctite the screws in position. Two massive ball races hold the differential in the fibre impregnated rear gearbox casings, but make sure that the drive pinion isn't too tight on the crownwheel by using the spacing washers provided. Once set with a small amount of play in the gears, grease the gears and screw the two casings together. The rear shock mounting is the next stage and this cleverly locates the anti-roll bar in place, allowing a smooth unrestricted movement. Now that is bag one finished so it is onto bag two: the rear wishbones.

An excellent feature here is that the wishbones are not handed, so

left fits right and vice-versa, so you only need to carry one spare to race meetings, although I would seriously question if you can actually break one as they are very substantial. Adjustable rear toe-in is built into the Crono by the way of eccentric cams, which can be locked in place by grub screws. The rear axles are again supported in massive ball races, with the axle secured by a hex drive wheel carrier which is grubscrewed (don't forget the Loctite) on to the axle.

Rear dampers are the next stage and these really are the business. Constant volume dampers with multiple 'O' ring seals and infinitely adjustable spring settings, through a threaded adjuster on the damper body.

The dampers went together really well and they have a nice progressive feel to them. The final stage to the rear gearbox assembly is the wing mounting. The wing angle can be set in three positions



in a BRCA national with the country's top drivers and £400 worth of strange transmitter in my hand.

My ace pit man (thanks dad) started the Crono easily and I promptly stalled it! Advice came quickly from all quarters that you have to keep "blipping" the throttle to keep the engine revving, so I quickly learnt the 1/8th scale twitching thumb routine!

I was entered into a middle rate heat and was allocated a five minute practise run around a fairly flat track with an interesting double concrete jump. My pit man put the car down and I gingerly crept out onto the track. I drove around carefully and to be honest I was very slow compared to the other cars; it was obvious that you do not drive these like electric cars. I still hadn't mastered the twitchy thumbs and bend the stick technique of 1/8th racing, but on my third practise lap I pushed the throttle stick full open as I entered the straight, and the Crono was at the end of the straight while I was still looking at the middle! These 1/8th cars are quick! They just seem to keep accelerating at the rate of a Sierra Cosworth on Nitrous injection! The disc brake hauled the Crono easily to a halt but I'd overshot the corner by 10ft.

With the practice session over, the racing started and we all had three rounds of qualifying. I won't go into detail about each heat, but I stayed around midfield position, eventually finishing second in the "E" final which I was quite pleased about. My best lap times were within 1.1/2 seconds of the winners, Jamie Booth's, so in the right hands the Crono is capable of being up there at the top. No trick or add-on items were added to the car, with Turbo Rats tyres eventually being used.

The Crono won a trophy first time out, nothing broke or came loose. An excellent choice for beginner or competition driver, and the acceleration is something else!

Thanks to Linda and Paul Dudley for making this review possible, and thanks to my dad for being my pit man!



silencer. A twin shoe clutch takes the power to the chunky pinion, which then drives the main steel drive gear. The teeth on these gears seem huge compared to what I am used to, and stripping there would be virtually impossible I would guess.

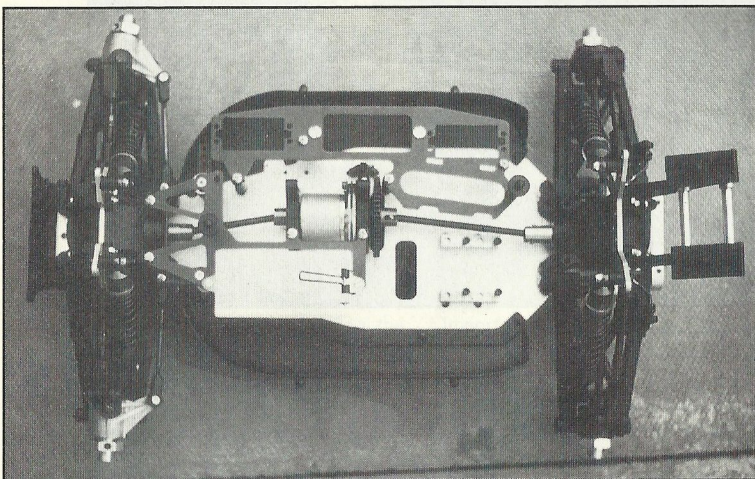
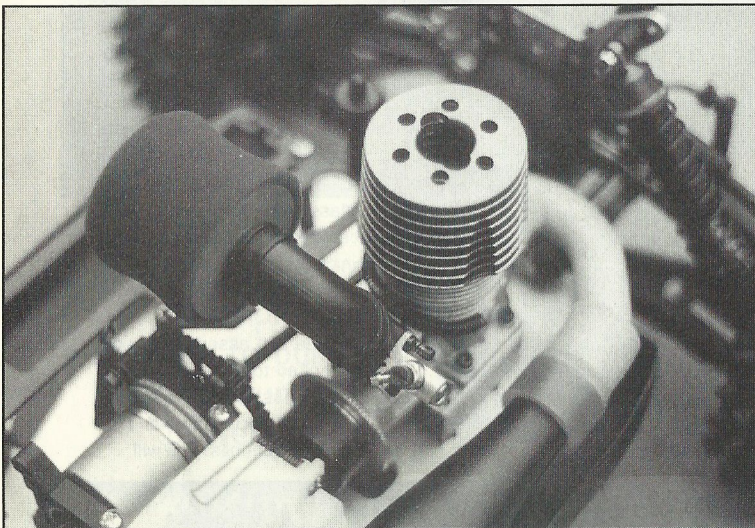
The fuel tank comes ready assembled, just requiring the lid and spring fitting, and then it fits snugly onto the radio plate.

Super chunky tyres are supplied with the kit which need gluing onto the low profile wheels after the foam liners have been fitted to the wheel itself. I was lent a gadget for the gluing of the tyres called "La Buite" from Medial Pro and it is brilliant. It consists of an inner base and an outer cylinder which sits over the tyre; you push down on the outer cylinder which lifts the tyre from the rim and you can glue with ease, with no more stuck fingers - superb!

A simple bodyshell is provided which neatly covers all the components and provides a simple but stylish look to the Crono. The final item to be fitted was an SVM air filter, which pushes over the throat of the sliding carburettor. Again an air filter is not included in the kit, but it is very recommended for off road racing.

I was itching to give the Crono a blast up and down the drive, but considering the flower bed was still suffering from an onslaught of Losi trucks, I decided to keep the peace. I loaded up the estate and headed off to Avon Park raceway for the first round of the BRCA national 1/8th championship.

Due to frequency allocation problems I was lent an identical Crono and Futaba field Force 3 radio system. I had still yet to drive a 1/8th car and here I was



need a small vice or long nose pliers for the servo saver as it is quite tricky as the spring is very strong, and it has to be compressed to fit an "e" clip; it helps to borrow a pair of hands for this bit!

Front and rear propshafts can now be fitted. The instructions recommend that any play is

taken up by small lengths of silicone fuel pipe, again this has to be purchased separately and cut to size.

Now for the best bit, no wimpy electric motor in this wagon, but a full blown 3.5cc SVM Picco rear exhaust buggy motor, which again was purchased separately along with the Bergonzani tuned