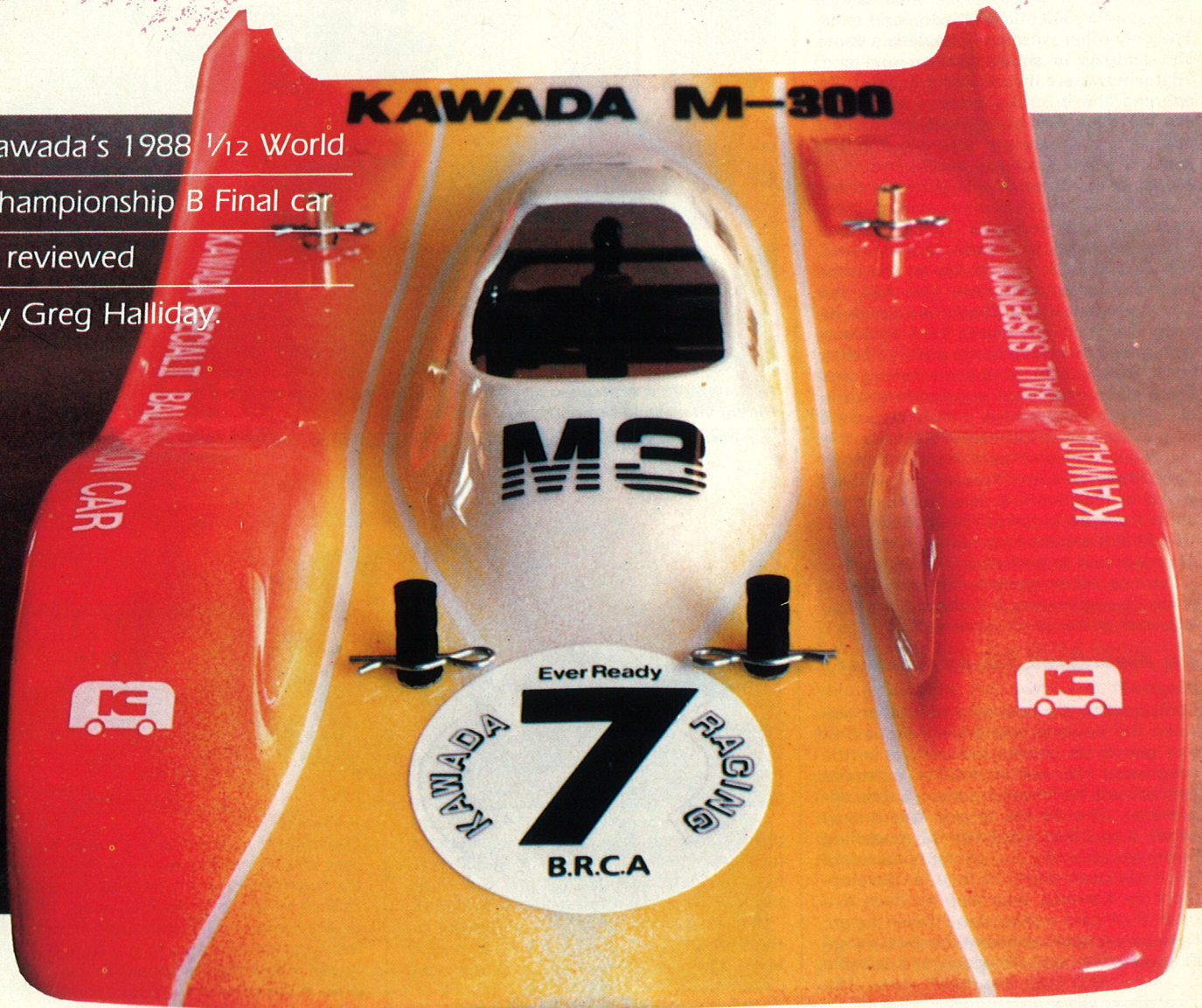


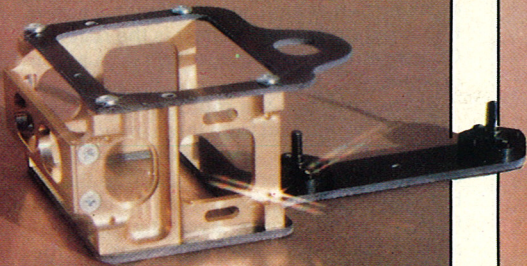
Kawada M.300

Kawada's 1988 1/12 World
Championship B Final car
is reviewed
by Greg Halliday.



Chokin is an 800 year old Japanese art form whereby the artist carves out in relief his chosen subject, be it a bird, flower, sailing ship or other design, and then guilds it in gold and silver. The images are carved on pottery items, such as plates or jars, to my mind the most attractive are those which are subtly finished in gloss black and

Below, the gold anodised power pod is good enough to frame and just look at it, it is a superb piece of machining.



The rolling chassis ready and waiting to go. As you can see the carbon fibre chassis is beautifully made.



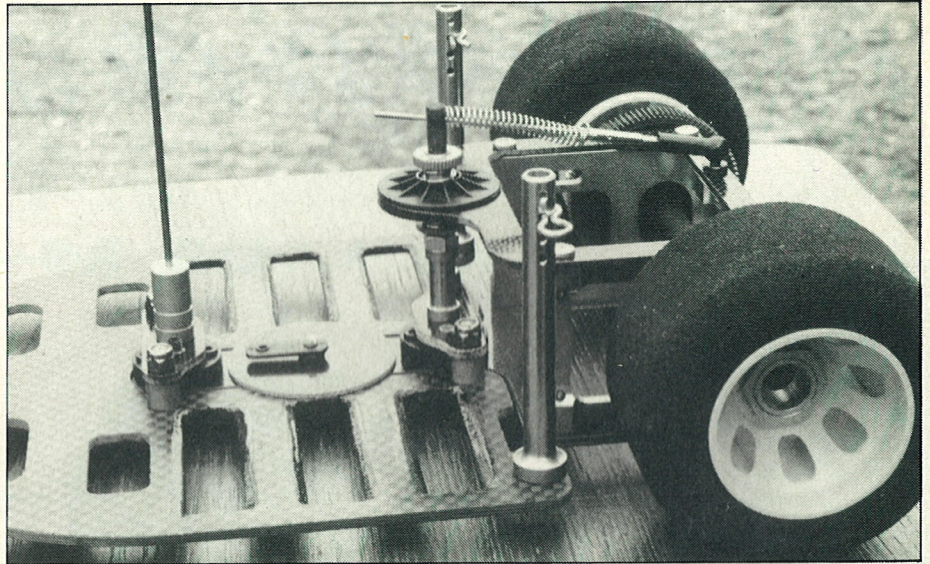
gold, with a hint of silver. So what has this got to do with Kawada's top of the range 1/2th circuit racer?

Well first of all there is the subtleness of the box top. No coloured action drawing here just a rich glossy black finish with a large gold M-300 title on the top and ends. The only other wording is Kawada's name and address in small print on one end. That's not where the similarity finishes. On opening the box one discovers that the chassis parts are black graphite, plastic/nylon components are also black (other than the white track rod ends), and all of the aluminium parts are gold anodised ('Alumite' plating as Kawada call it). 'Okay, the car is black and gold', I here you say, 'Is that all its got to do with Japanese art?' No! Quite simply this is one of the most nicely manufactured cars I've had the privilege to assemble. The kit has obviously been designed and made by enthusiasts who take a real pride in the quality of their work. The quality of the machining and finish of the aluminium components has to be seen to be believed — it is Japanese engineering art at its finest. This is not only my opinion, all who have seen the finished product say the same. Kawada too, are very proud of their work on the M-300; let me quote from the four page assembly manual: 'The M-300 is made from high quality material machined to perfection'. Quite true!

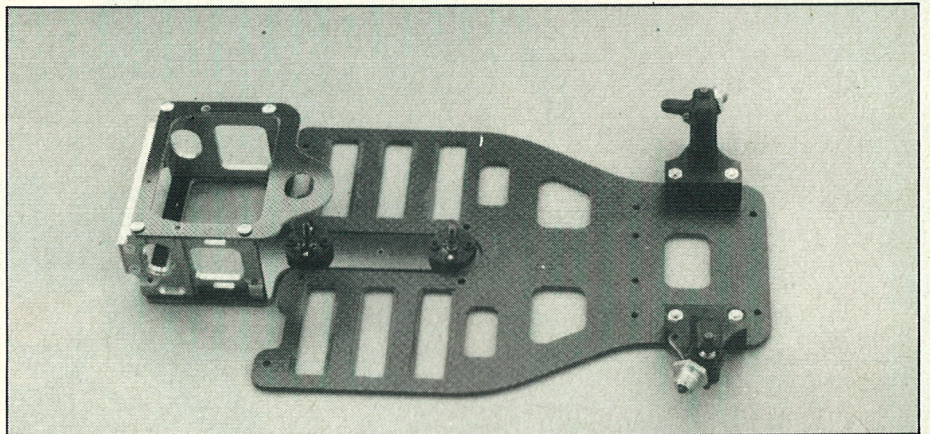
Even so, it's no good to have a beautiful piece of engineering if it doesn't work so let's look at the car in more detail.

An Associated 12L by Another Name?

Comparisons are bound to be drawn between the Kawada and other marques; at first glance its closest similarity is to the Associated 12L, but on detailed examination you will find there are many subtle differences. The M-300 is not brand new either. It was first noticed by the modelling press towards the end of 1987, therefore there has been plenty of time for development by Kawada, who also produce five other 1/2th cars. I understand that in Japan, Kawada are well respected for their range of innovative, well designed and reliable



All damping is controlled by this friction plate; it works superbly well. Below the almost rolling chassis, looks pretty doesn't it.



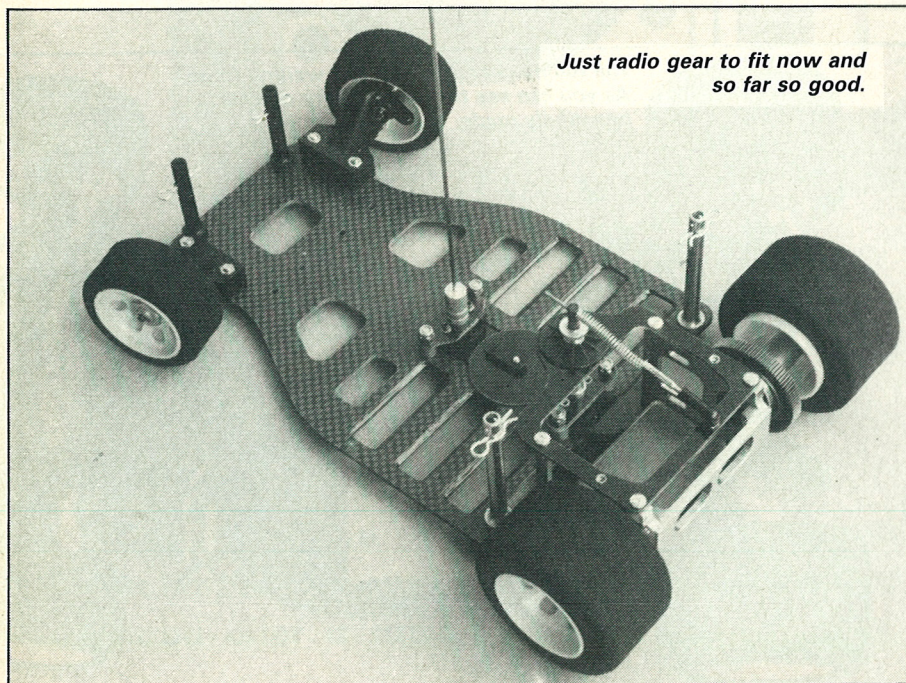
products which they have been producing for several years. Certainly the M-300 must be good as it qualified for the 'B' final in the 1988 World Championships in Holland!

The first most noticeable difference on the M-300 is that the 'T' bar is set at chassis level whereas on the 12L it is mounted

above. This probably will have some different effect on the chassis roll, but I'll leave the scientists among you to work out what! Suffice to say it works very well. Two ball pivots mounted in plastic cups allow the 'T' bar to pivot and excess roll together with tweak adjustment is controlled by a pair of grub screws mounted above the bar tightening down onto the top of two of the screws that hold the ball pivot cups together. You don't have to glue strips of tin on the chassis with this car!

A major difference between the Japanese and American products is that Kawada include a circular adjustable centre stabiliser between the ball pivots on the 'T' bar. As this is clamped in place by a small plastic plate and an 'O' ring, the effect of tightening the fixing screw is to provide a form of roll damping. Kawada provide 1 1/2 pages on how to set up the car and explain that if the screw is left in its normal position, the effect is mild turn-in at slow to middle speeds and quick turn-in at high speed. With this screw tightened one turn the effect is the reverse. On carpet the recommendation is 1/2 a turn tightened.

At the rear end the motor/graphite axle mount is assembled from three interlocking pieces of gold anodised aluminium screwed together and then down to the 'T' bar. The damper plate is fixed on top with four pan head screws. Even the 'pro' version of the 12L does not have such a large metal area to act as a heat sink for the motor. On the M-300 you can also remove the drive motor without having to remove



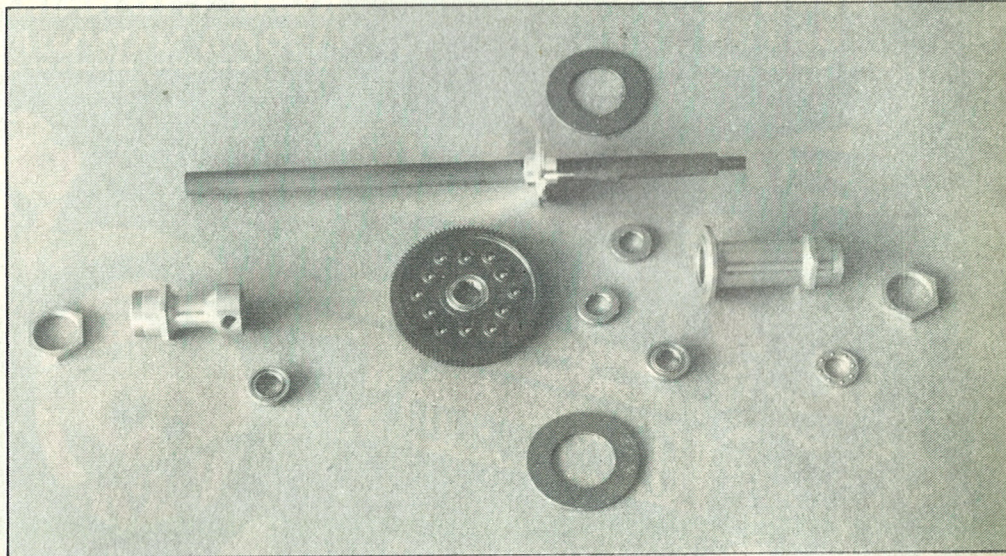
Just radio gear to fit now and so far so good.

the damper plate. (A feature which is of course also available on the Schumacher 'C' range of cars). The completed pod assembly is exceptionally rigid and shouldn't permit any alteration of alignment to the rear axle and bearings and consequently will maintain exact meshing of the motor and pinion.

The rear end anti-sag control (Kawada refer to it as a ride height adjuster) is very similar on both cars except that the M-300 has aluminium fine thread adjustment knurled nuts on the damper post for easy and precise control. Coupled with the stabiliser previously referred to, the M-300 therefore has damping on the top and bottom of the rear pod assembly.

Moving onto the differential, a nice feature is that 64 DP gears come as standard; a 96T spur gear with a 24T pinion. Surprisingly this former spur gear is fitted with 12 diff balls and a centre ball bearing race. The motor side aluminium hub is also fitted with a ball bearing race in each end which makes for a very smooth action. Kawada manufacture 96, 98 and 100 tooth spur gears, (which just might fit other peoples axles!), and 18-27 tooth pinions. However I can't foresee any problem with using any good 64 DP pinion.

The front end of the two cars is similar except that the M-300 dispenses with the brace between the steering blocks. These blocks have a small amount of castor and

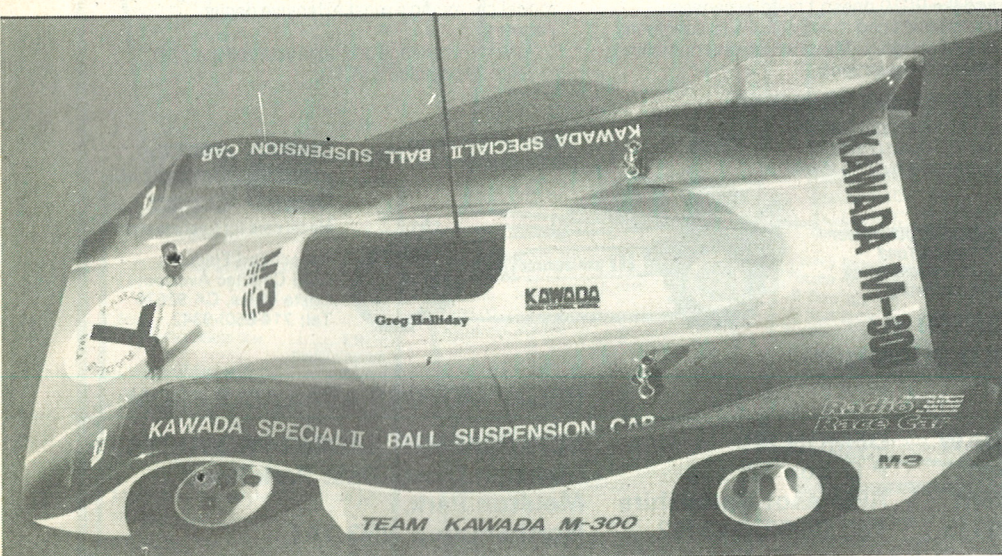
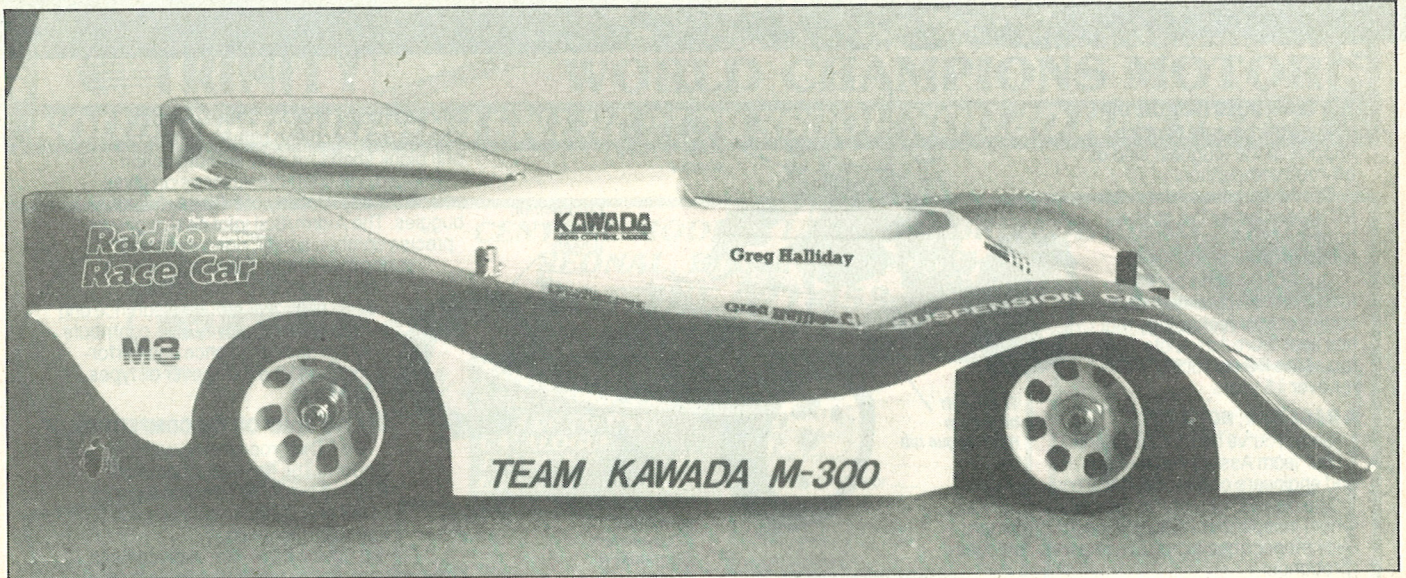


The disassembled diff, easy and straightforward to assemble. Once built it should stay built.

negative camber built in. The suspension spring arrangement is also very similar, but a really nice feature is the beautifully made gold anodised live axles, each fitted with two ball bearing races. Several top racers prefer live axles as they point out that a bearing can get knocked out of the wheel and cause a lock-up.

What about Special Features, then eh?

If you look at the photographs I'm sure you'll agree the yellow wheels are very attractive. What you can't see in the photographs is the tiny 'Kawada Racing' slogan moulded into the hub; just another point to prove the pride the manufacturer has in his



product! These wheels are very accurately moulded, rigid, (just look at all that bracing), and lightweight. But the nicest feature is that all four wheels are held in place with gold anodised nuts. This means that you can easily change the rear wheels without affecting the differential adjustment! That's got to be a real boon. A large plastic wheel nut wrench is supplied to make wheel changing easier.

Tyres are supplied ready trued, but not glued to the wheels. A 'green' type rear tyre is supplied with a firmer compound being used on the front — Kawada claim: 'The tyres are the best you can get'! Rear diameter is around 58mm.

The steering tie-rod ball joints are bolt through type and seem very strong and the body posts are hollow nylon on the front, (looks as if they could be glass filled), with hollow anodised aluminium at the rear.

To be continued