

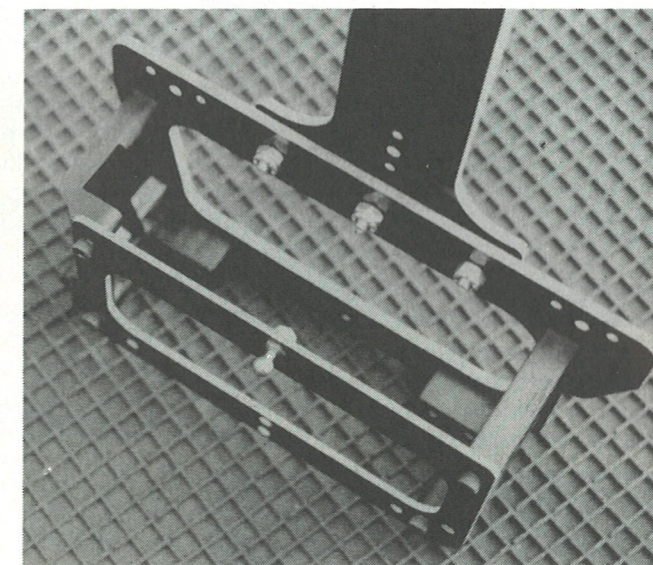
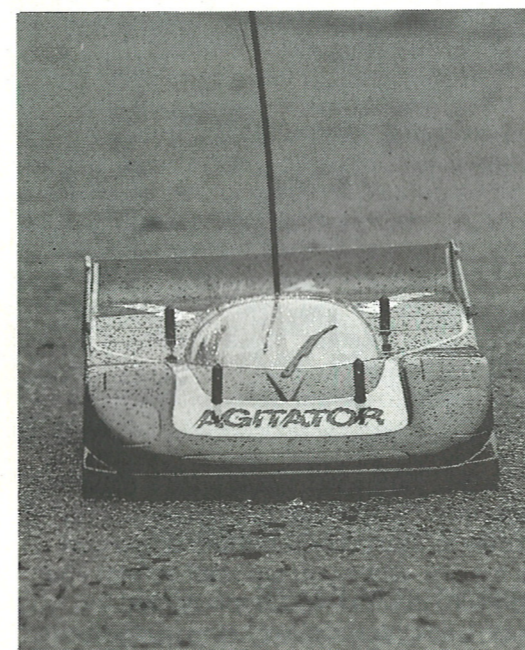
T.Q. Tests The Agitator JR To See If It Can Play With The Big Boys?

Around this time last year the Agitator was first introduced to the U.K. circuits. It wasn't an overnight success and there wasn't a fairytale ending to the season with the car taking the circuit championships. There were several reasons that I shall put forward as to why that didn't happen but one thing that is for certain is, that it was no fault of the Agitator!

In order to be succesful at any racing you need a reliable, fast, well tuned car that handles superbly and a driver

who knows how to make the most of all of those charecteristics. As last years 'A' final results clearly show there were always the same seven out of the ten 'A' finalists on the rostrum. Why? Simply because they could outdrive all others. When it comes to equipment levels at national level racing it's no different than that available to any club level racer. O.K. so there are always a few exceptions to any rule but let's turn the argument around and take as our example two of last years most succesful cars. The R.C. 10L, and Parma's Pro Ten.

Whilst there is no doubt that these two cars performed amazingly well in the hands of Dave Gale, George Land, Glyn Peglar and Jimmy Davis, there were other drivers, not named here for obvious reasons, who did not reap the same rewards. Whilst the cars formerly mentioned may well have improved the individuals lap times and all round performance levels, they did not shoot their drivers straight into the 'A' final on their own. So the point that I am trying to illustrate is simply that all of us who were beaten, and that includes me, were beaten



You can clearly see the clearance between T.bar and pod in this shot.

because we were outdriven. Furthermore we should take that into account when it comes to choosing a new car for the newseason. It also follows that when any product is reviewed it must be looked at in this same light and it's past results or lack of them should not cloud a reviewers judgement. After all just because we can't play the guitar doesn't stop us from recognising a good piece of music now does it?

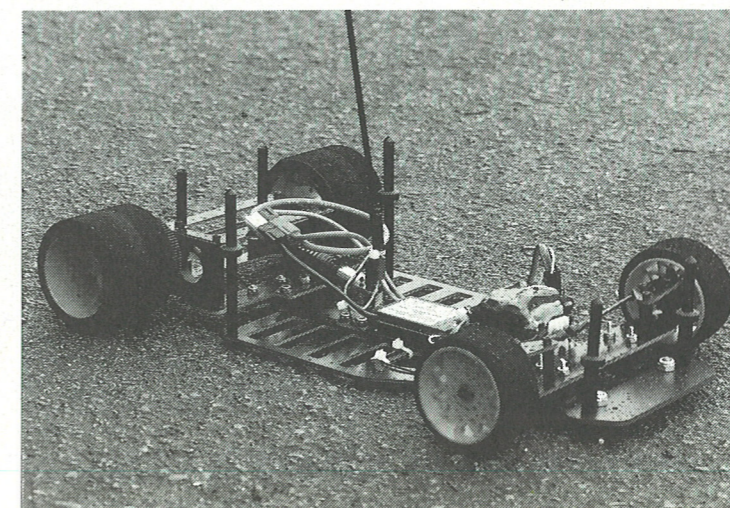
KNOW YER BITS!

Stuart McAllister from Holcomac sent T.Q. the Agitator Jr for review and we gratefully accepted it. Our suggestion to anyone who is just about to build a new car is to sit down and carefully read the instructions first, whilst familiarising themselves with the parts of the kit, we followed our own advice and did this. On opening the instructions we read, "We feel you now possess the best entry level on road/oval race car available. "On examining the various parts we must say that Advanced Racing Industries

are in some ways putting their product down when they describe the Agitator Jr in such terms! If this is their entry level car then we would love to see the top of the range car. A high quality, pre-drilled and countersunk fibreglass chassis holds all of the other parts together and the quality of the other parts is, shall we say at this stage, above average.

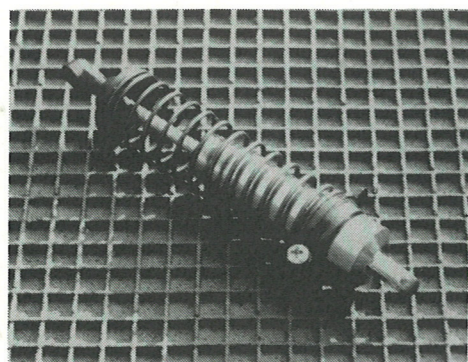
Back to the instructions and assembly begins with the Agitators unique front end which consists of a lower flat beam and an upper A arm.

This type of suspension was popular with full size sportscar manufacturers at one time, and speaking as someone who once regularly drove an old two seater that used this set up I can confirm it gives a very smooth ride with lots of understeer, just the job for anything on four wheels moving at great speed. Kingpins and steering blocks are fitted between the two arms and held in place using kingpin bushings. Before fitting the steering blocks make sure that you have tapped the

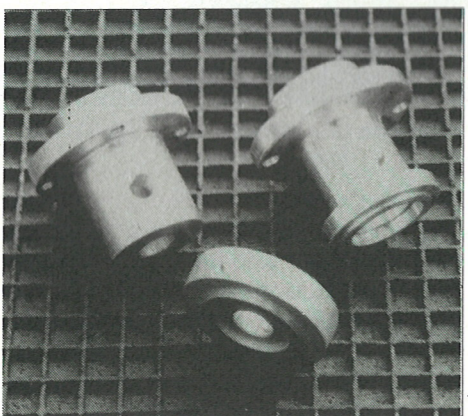


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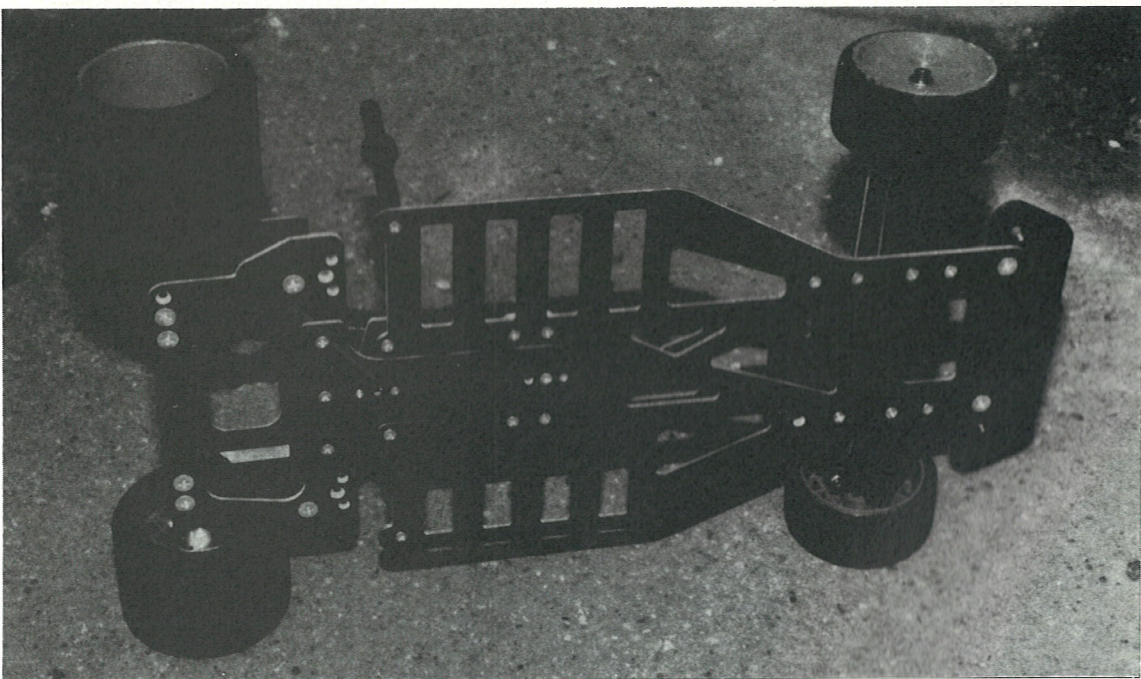


A single Kyosho type shocker controls the longitudinal damping for acceleration as well as deceleration when setting up this car, ideally you want the equally damped in both directions.

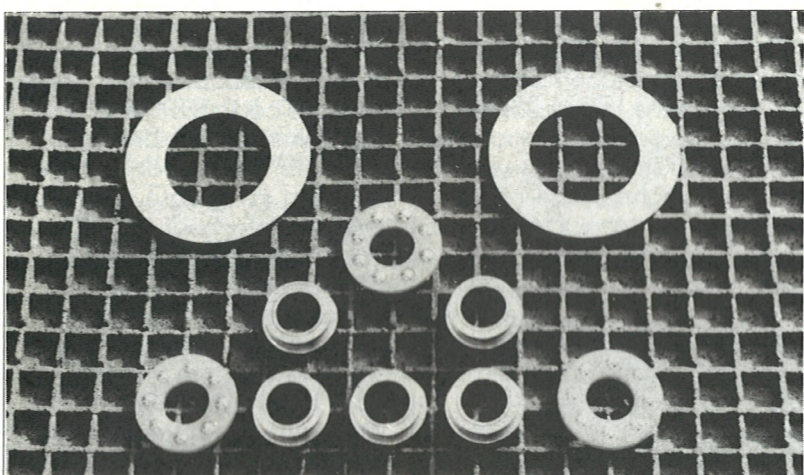


Strong, light and beautifully machined hub and diff hob parts go together to make for an extremely smooth diff action.

axles firmly into them and secured all with E clips. Once this has been done and all is moving as it should then you can move onto the second interesting part of the front suspension set up, the saddle blocks. These items allow the caster angle, that is the angle at which the kingpins lean backward from the vertical, to be altered to suit your particular driving style. It is important to get this caster angle exactly right so that the car performs as you wish and is not an oversteering accident, frantically searching for somewhere to be very terminal! At this stage set the caster angle at around three degrees from the vertical and bolt everything together. Before we move on let's take a closer look at the saddle blocks themselves. These unique items are actually a saddle and pivot block combined in one unit that enable Agitator drivers to set the all important front end castor exactly and accurately for both front wheels at the same time. An externally radiused pivot block is fixed to the Agitators chassis and an internally radiused saddle is fixed to the lower front suspension beam, these two rotate around each other accurately so that an exact caster angle can be dialled into the the car. When you are satisfied that you have found the optimum position, you simply tighten the bolts that run through both the saddle and the pivot block and they stay firmly fixed, even in a shunt. One less thing to check and adjust gives you one shot better than the opposition! The whole front end of the car is also extremely strong so the first incident you become involved in won't have you reaching for your pocket.



Everything is flush fitted so that nothing touches the ground. If you look carefully you can see holes with nothing in them! These are to take all the beef up goodies that allow the Jr to be upgraded to full pro spec.



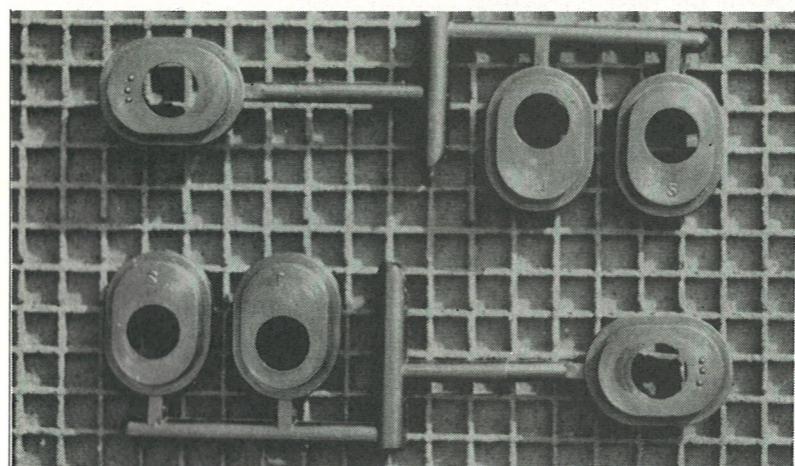
Eight independently raced bearings is the other reason why the Agitators differential is on so smooth. Not just a point of editorial worth but it is one of the reasons why the Agitator drives into corners so smoothly, and so fast.

TREAT IT AS SUSPENSION!

Radio plate and T bar are both bolted to the chassis. One area that is worth double checking is that the pivot block and ball are greased and moving freely when assembled. The pivot block is the point at which the front of the T bar connects to the chassis, remember this contact point will control the hopefully smooth movement of the rear pod and is in fact a suspension point and should be treated as one, so make sure all is well before final assembly or you may find handling problems occurring. It is now time to consider installing the rear pod and differential.

IT'S ALL SPHERES TO US.

As far as the rear pod is concerned there is nothing that you could do wrong if you follow the step by step instructions provided, actually the same goes for the rest of the build. The instructions are not graphically up to Japanese standards and you have to read them instead of following lots and lots of little pictures, but they are still good!



A full set of three position ride height adjusters is supplied with each kit. Do not throw the other two away after making your initial adjustment choice. As your tyres wear down you'll need to alter which adjuster you are using.

The rear differential and axle set up is in a class of it's own, the first thing that anyone would notice is that there are no fewer than five ballraces and three open cage thrust bearings, making a total of eight individually raced surfaces across the entire power train. It does make for the smoothest operating differential that we have yet had the pleasure of tweaking and once again should aid handling and certainly help to reduce any power losses through the drive train. Amazingly no diff balls are supplied with the kit, although this does give you the option to purchase specially hardened diff balls from your local hobby shop. These are well worth the extra pennies and will make certain that your smooth diff action will last a lot longer than it would otherwise. While you are at the hobby shop be sure to obtain some front wheel bearings as well. Inexplicably Advanced do not include these in the Agitator Jr! Whilst on the subject of differentials did you know that a circuit cars diff can be tuned to alter it's handling characteristics? In short the more you tighten the diff lock nut the less turn in your car will have, the reverse is also true up to the point where your whole differential is slipping. On no account should you run any diff in this condition, unless you are hooked on the smell of melting plastic! After all what you do in the privacy of your own home is your affair! Back to the kit; finally add the shock absorber. This is of the Kyosho type and is very smooth in operation, all you have to do is insert the shaft, add the piston, install the locking clip at the bottom and make sure that all of the air is bled from the system and your well on your way. From start to finish it took us about ninety minutes to



A G I T A T O R

assemble the car to this stage, in fact it took much longer to write the review than to build the car!

Our comments to this stage are almost all positive. Everything without exception has fitted straight from the box, all components are manufactured to the highest possible levels and from first class materials. One outstanding point is the ease of operation of that beautifully smooth diff. Two niggling points however on the downside, the lack off diff balls and the lack of front wheel bearings, although high quality phosphor bronze bushings are included in the kit.

WHERE IT COUNTS MOST

So far then the Agitator is well up on points so we fitted some radio gear and went to the track!

As can be seen we used an Andy's Sauber Mercedes for the test and were generally delighted with it's performance. It gave the Agitator a very predictable and stable ride at top speed. For this first run we fitted Parma blue compound tyres at the front and P.B.215 soft at the rear. The front caster angle was set using a protractor at two degrees, the rear of the car was set up using damper oil supplied in the kit, soft spring (one of two different springs supplied) and away we went.

Along the straight no problem. First impressions are very fast and oh so smooth, into the first right hander and with the steering rates already turned down to half she was still oversteering badly. Back into the pits we came and added another two degrees of caster and left all four tyres as they were. Back on the track the difference was instantly noticeable the Agitator was now a tame tiger and was handling well, that extra two

degrees certainly made a difference and with the steering rates turned back up to around the three quarter full again, the car was controllable on the fast straight and would still turn in tightly in the infield sections of the track. A second run was made using Yokomo soft tyres on the rear but keeping the blues on the front, there was little noticeable difference in the cars handling which is meant as a compliment to Yokomo tyres, all last season we couldn't find a suitable replacement for the now, we believe defunked

wheel bushings are supplied instead of bearings and if we really wanted to be ultra niggly then we could say that an aluminium motor plate would be better than the delrin plate supplied, in anycase adding a bolt on motor heatsink would take away the same amount of heat! We believe that an aluminium motor plate is also available from Holcomac for those who wish to fit it later. Sorry but we at T.Q. have to disagree with Advanced and say that this car would be well suited to racing at any level, we know that one or two top level off road drivers are driving the Agitator this year throughout the B.R.C.A. national series. We know they will do extrememy well, we think you could too. Give the Agitator a try you'll like it, we did! Also worth bearing in mind is that you can upgrade the Jr to full Agitator Pro spec, when funds allow.

All Advanced racing products are available in the U.K. through:-

Holcomac Marketing Ltd,
Britannic House,
17A George Street,
Stroud,
Gloucester.
GL5 3DP.

Telephone 0453 752846.

AGITATOR

"JR"

Price £115.00



EQUIPMENT USED:

CHARGER

**Competition Electronics
Turbocharger**

SPEED CONTROLLER

Corally M.M.S.

CELLS

Last Years S.C.E's

TYRES

**Parma Blues/
PB215 Soft/
Yokomo Soft.**

P.B.215 soft. We tried several different suspension set ups and spring rates throughout the day and found that whilst the soft spring worked well at the rear the hard front springs supplied in the kit could be changed for softer units which gave even more controllable turn in without reverting to dangerous oversteer.

At this point we feel that we have to return to our opening comments and state again that we feel Advanced racing are putting themselves down by refering to this car as entry level stuff, we accept it has fibreglass components instead of carbon fibre; and O.K. front