

KIT REVIEW

F.G. MODELLSPORT BMW M3

The BMW M3 is the second of the German F.G. Modellsport 1/5 scale saloon cars to be imported into Britain by King Cobra Models, and is an excellent adversary for their already very popular Mercedes Evo II. The growth of 1/5 scale petrol engine racing in this country has probably exceeded all expectations, and the large number of cars already sold are helping to ensure this class of racing has a secure future. The latest saloon version, the ALFA 155 V6Ti, is now available, and there are shortly to be available a pair of Group C Sports cars, which should really be something!

An initial look at the BMW M3 shows the majority of the parts are sourced from the previous Mercedes Evo II, the main difference being that the BMW has a much shorter wheelbase which in turn means the two cars handle quite differently, more on this later. The second, and more significant difference is the use of the Zenoah engine, replacing the previous Robin unit. The original Robin engine fitted to the Mercedes gives the car ample performance out of the box, but it can also be retimed by King Cobra Racing Models to give about another 20% power, however the new Zenoah motor by far outperforms the Robin, both on both top end power, and especially bottom end torque. I shall have something to say about this later.

Busting the BM out of the Box!

On opening the very large box, the purchaser finds that the car is basically already constructed, and experience has now shown that the standard of preparation is very high, no need here to have to strip anything down to check it out. The only work to be done by the builder is the gluing of the tyres to the wheel rims, the installation of the radio equipment, and the painting of the bodyshell. At this point it is worth commenting that the bodyshell is probably of the highest quality available, and is completely cut out to a very high standard. The shell is crystal clear and very detailed, and hence deserves a good paint job, but if you don't fancy tackling this yourself, fully painted shells are available from King Cobra Racing in either the standard Warsteiner or Jagermeister colours, or a scheme of your own choice. Comprehensive decal sheets are provided

in the kit, along with the appropriate coloured wheels.

The next step is to glue the tyres to the rims, after first fitting the foam rubber inserts. The inserts should first be joined at the sides as shown in the instructions, and experience has shown that it is better to also glue the insert into the tyre with a contact adhesive, as this helps to stop the insert moving in the tyre. The tyre is then glued to the rim with cyanoacrylate which is a simple task of running the cyano around the rim and into the groove the tyre sits in. The finished result looks extremely realistic. There are three different compounds of slick tyre to choose from, with a rain tyre shortly to be available. The kit is supplied with a soft compound for the rear, and a hard compound for the front, with this a perfect choice for the novice driver as the result is safe or understeering handling, ideal for getting used to

the car, although more experienced drivers will go for the medium compound on the front. The other compound is labelled super soft, but I have only found this necessary on the rear in very low grip situations.

With the bodyshell painted and the wheels and tyres fitted, the only job left is to install the radio equipment. Any standard car type transmitter and receiver can be used, but the servos do need to be the large Futaba or equivalent 'brick' type, with two servos needed for the steering, although a standard size servo is adequate for the throttle, although this does have be of good quality, with at least a 5kg pull. A large 1700 mah nicad pack to

power the receiver and servos is also required.

The steering servos work in unison and so can be operated from the receiver's socket with a Y lead, or connected to separate channels and mixed on the more expensive sets such as the Futaba, Sanwa and new JR computer radios. This will be fully explained in the radio instructions.

The radio plate is made from a strong plastic moulding, and has all the appropriate holes ready formed, the servos being fixed in with self tapping screws. All of the linkages are supplied and are simply fitted, one point of note is to make sure you use strong servo discs rather than arms, as arms haven't proved up to the job. Make sure that full lock can be obtained, as this is essential, and also that the end point adjustment is correct, to avoid overloading the servos which causes excessive battery

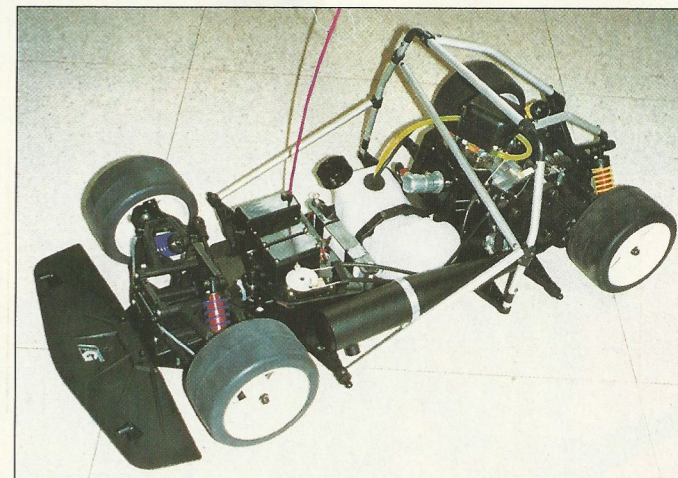
drain. The throttle and brakes are operated by means of cables and are simple to adjust, again taking care not to overload the servo.

The car is now complete and ready to fire up, and with the exception of painting the body, only takes about 2 hours work to bring to this stage (and that's doing it carefully!).

The Zenoah engine is a 2 stroke, and so needs a petrol/oil mix. A ratio of 40:1 is recommended, and 4 star petrol is essential. It is recommended that a top quality racing 2 stroke oil is used, to enhance both the performance and durability of the motor, although this is not absolutely essential.

The suspension as it comes set up from the manufacturer is perfectly adequate for initial running, although the car is

The ready to run chassis with the radio equipment installed. Note the use of an "aftermarket" servo disc on the throttle/brake servo to withstand the load imposed upon it. The receiver is neatly housed in a waterproof plastic box to the left of the two large steering servos.



The finished BMW M3. The large size allows immaculate paint jobs to be easily produced (with a suitable amount of paint that is!), and the subsequent realism makes the car very attractive.



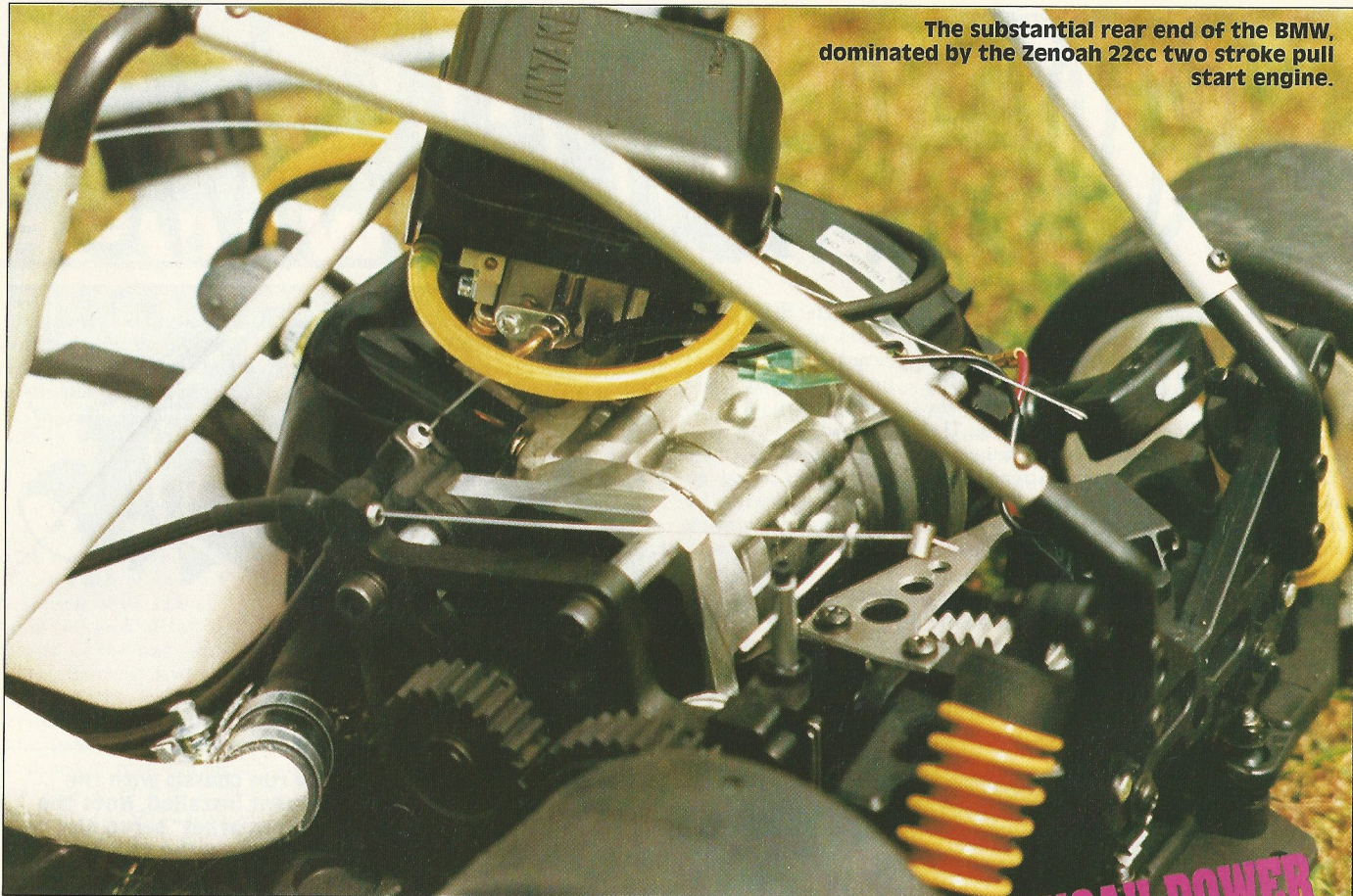
The F.G. Modellsport 1/5 scale BMW M3 as it comes out of the box - ready built! All that remains to do is to spray the bodyshell and install the radio equipment.

fully adjustable (changing the car's suspension set up will be dealt with in a future article), so it's time to pack the car (literally!) and head for the track.

The Zenoah doesn't start quite as easily as the earlier Robin engines, but this doesn't really prove a problem, and with a few pulls the engine is running. The first thing to impress is the crispness of the throttle, with its instant response, and the gorgeous noise from the tuned pipe.

A few laps are needed to bring the slick tyres up to operating temperature, so don't push too hard too soon as these tyres work just like the

ZENOAH POWER REALLY GIVES THE M3 MORE 'GO'!!!



The substantial rear end of the BMW, dominated by the Zenoah 22cc two stroke pull start engine.

**ZENOAH POWER
REALLY GIVES THE M3
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full size, and have to be warmed up to grip properly.

On the track, the handling of the BMW is very precise, although on the kit tyres (hard fronts), an amount of understeer creeps in as one starts to push the car in the corners. This is very controllable, and also desirable for the novice, as it makes the car easy to drive. A change to medium front tyres brings back the responsiveness of the steering and gives the car instant 'turn in', with tremendous power on steering right through the corner.

The Zenoah engine has fantastic torque, as well as top end power, and gives as much performance as can be handled in one of these cars. Traction is actually very good, although you have to be more

careful when applying the power than with the Robin engined Mercedes, which I know has given rise to comment, as some drivers will insist on "nailing" the throttle, resulting in awesome wheelspin!

As said earlier, the majority of the components are sourced from the earlier Mercedes chassis, and this combined with the shorter wheelbase chassis has resulted in a much reduced ackerman angle on the steering geometry, and has resulted in a car that is much more responsive. This will suit some drivers and not others, so the choice between the BMW and Mercedes will be a personal one. Whatever the choice, the BMW M3 is a superb racing machine, engineered to a standard that should give years of reliable

running. If there is one criticism that I would make of the car then it has to be the brakes. These consist of two fibreglass discs, but they are only of the size normally found on a 1/8 or even 1/10 scale car. Initially they seem to work OK, but after a few hard laps, an amount of fade creeps in, and they are not really up to stopping a car of this weight.

Is there an answer? There certainly is, as F.G. now produce a fantastic front disc brake conversion for the car, and I can assure you this gives the car awesome stopping power. Setting up the suspension and fine turning the car will be dealt with in a future issue.

As there are no other 1/5 scale circuit racing cars currently distributed in this country which compare with the performance and quality of this car, no comparisons can be made, but F.G. ModellSport have already set the standard by which others will be judged. A hard act to follow!



The roll cage tubing protects the motor and air filter from possible damage. Note the tread depth indicators on the rear tyres, as per full size practice!

Footnote

There will be two major Championships running for this class of car in 1994, with racing right through the Summer and Winter, at venues all around the country. Take a look at the Top Scale column, now written by Colin Leake, for details of events.

The F.G. ModellSport BMW M3, MERCEDES 190 Evo 11 and ALFA 155 are imported and distributed in this country by: King Cobra Racing Models, 1 Bank Street, Rawtenstall, Lancs. BB4 6QS. Tel (0706) 220780