



Mardave are the masters of good, cheap RC fun and with their latest - the Sport they have excelled themselves....

SPORT OPTION

Some time ago, we reviewed Mardave's 2WD competition kit, the COBRA. Since then, the Cobra has continued to find racing success, predominantly at club level, throughout the country. The latest edition to the Mardave family of model cars is the COBRA SPORT, a cut-down lower spec version of the existing COBRA TQ kit.

Unbelievably, the COBRA SPORT actually retails for approximately 75 percent of the already astonishingly low price of the COBRA TQ. That equates to a cost of about seventy five to eighty pounds. The Sport also contains a standard Mabuchi 540 motor and a mechanical wiper/board speed controller!

The main differences between the two kits is that the Sport contains a mixture of plastic and metal bushes instead of ball races, fixed length plastic upper arms

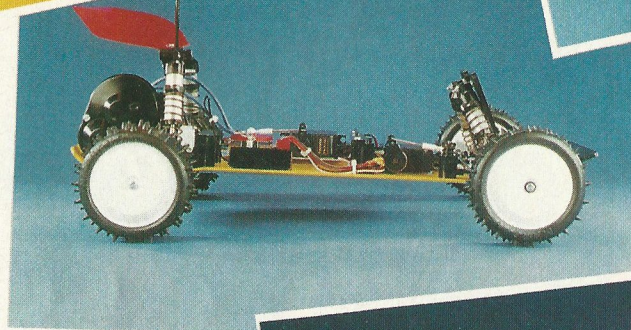
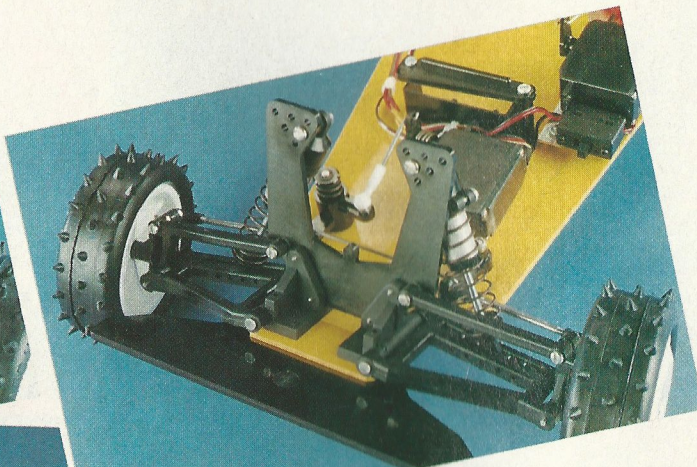
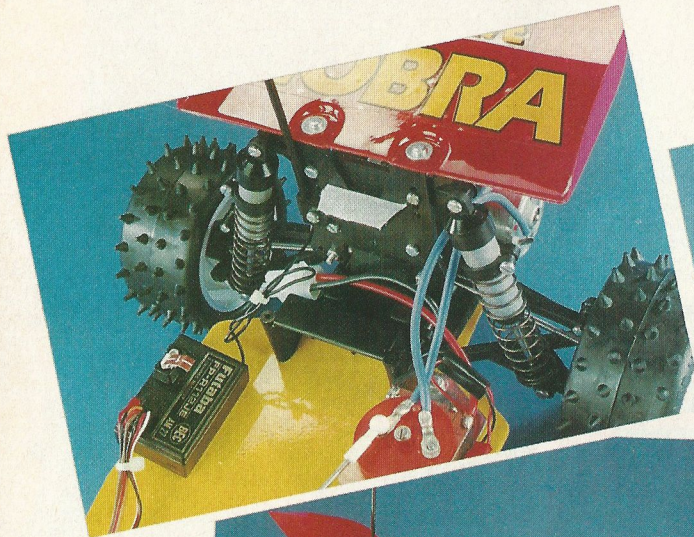
instead of adjustable tumbuckle types and a standard 32DP spur gear instead of the 48DP slipper clutch/spur gear arrangement of the TQ.

Under way

The assembly of the Sport is fairly straight forward although the instructions can be slightly deceiving in one or two places. The instruction manual is very basic and contains only a handful of major assembly steps. The most informative part of the manual is the separate exploded diagram of the car which can be used not only to identify the components but also to explain the text in the manual.

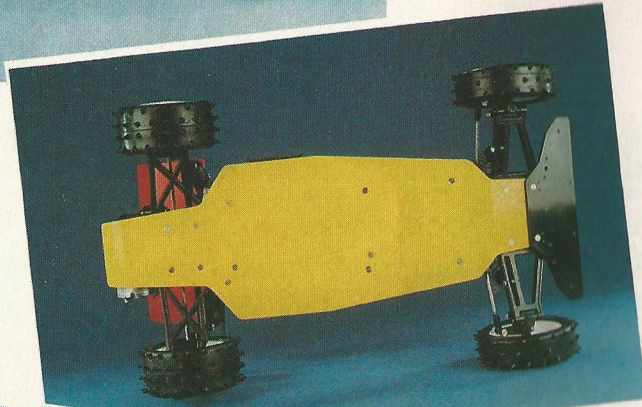
Construction begins with the front suspension assembly. This consists of assembling the two

KIT REVIEW



Moulded shock brackets are light and tough and work very well...flat faced wheels are sleek and keep the mud off. Below; Flat pan chassis houses the components in a neat and well laid out fashion.

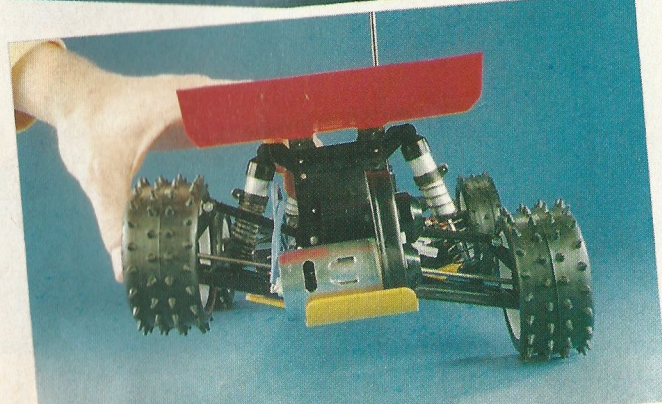
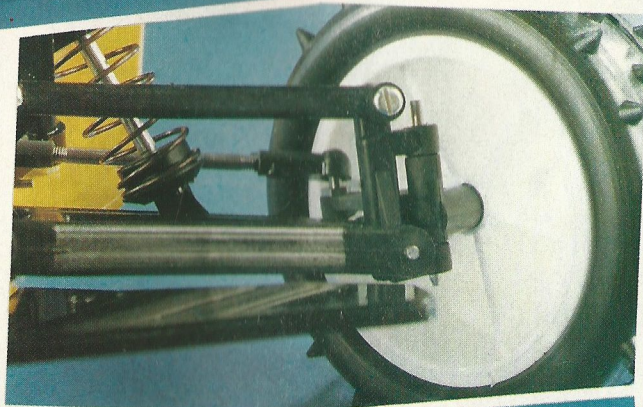
wishbones onto the front brackets. The brackets also provide the location of the front shock mount, a plastic moulded item with a variety of fixing holes for the shock absorbers. The steering arms and uprights are secured by lengths of steel rod (possibly piano wire) which must be lightly hammered



Take care

Care must be taken when tightening up the locating/pivot screws at each end of the moulded top links as if they are too tight, the assembly will not function properly. I found that the use of a small Tamiya spanner along with a Box-wrench made life a lot easier and quicker. The front suspension assembly is completed by attaching it to the bright yellow chassis and securing the large front bumper.

Next up on the agenda is the steering assembly. This consists of a pre-assembled bellcrank/servo saver and a slave arm. Assembly is via two countersunk screws from the underside of the chassis and a locknut and an E-clip. The bellcrank and slave arm are connected via a non-adjustable wire link. It was



into place. This task is made easier by the presence of a taper on one end of the rod which must be inserted first. On the original TQ kit, this was one of our major concerns. The rods function correctly and are easy enough to insert but, for the purposes of disassembly, the rods must be tapped out with the use of a suitable size dowel (an allen key

for instance) which makes the job more difficult. If the rods had a small return on one end, the repeated job of assembly and disassembly which is a requirement in model car racing, would be much easier.

found, on our kit, that the assembly tightened up on the bellcrank side once the securing E-clip was positioned. Under closer examination, this was due to the bottom edge of the bellcrank rubbing against the bent up side of the chassis plate. A few deft moves with the scalpel blade created a chamfer on the bottom edge of the bellcrank which alleviated the problem. Once functioning correctly, the steering assembly is very free and should ensure a trouble free operation for quite some time. A complete spare bellcrank was included in the kit, presumably as a spare should anything untoward happen to the car during racing which is a nice touch.

The assembly process is now diverted to the rear end of the car and the gearbox. Drive is transmitted through a plain spur gear and into a straight forward gear reduction box to the ball differential. The diff is supported by two ballraces, the idler gear by two brass bushes and the top shaft by two plain plastic bushes, ALL of which have to be pressed firmly into place otherwise the gearbox will not operate freely. The moulded case halves fit perfectly and are kept together by five screws, three of which support the motor plate. The spur gear is located via a small pin and kept in place by a locknut. The gearbox halves also provide mounts for the rear wishbones which are held in place by shafts unlike the front assembly. The rear uprights however do require the use of pins like the front uprights and care must be taken to ensure that the left hand upright is used on the left hand side and vice versa. The top links are very similar to the front items, only 1mm longer and they are secured in the same fashion as before. The shock mount is a plastic moulded item with another moulded cross bar section screwed to it to provide the top damper mount position. This cross bar can be placed in a series of vertical holes on the mount which affects the overall ground clearance of the car.

For this review, we fitted a standard two channel Futaba set which costs approximately fifty pounds. The set comprises of two standard 148 type servos (although a fast ballraced servo was fitted for the steering in our car) and a BEC two channel 27Mhz receiver. The servos and receiver are all held in place by servo tape which personally, I have my reservations about - especially for the steering servo which can be subjected to quite a heavy loading. Mounting posts secured through the chassis is a much more bullet-proof method which could be used simply by drilling and countersinking additional holes in the chassis for the mounting posts (which can be sourced via any good model shop). Having said that, the tape supplied seems to be very strong a will work as long as the surfaces are clean

Moving on

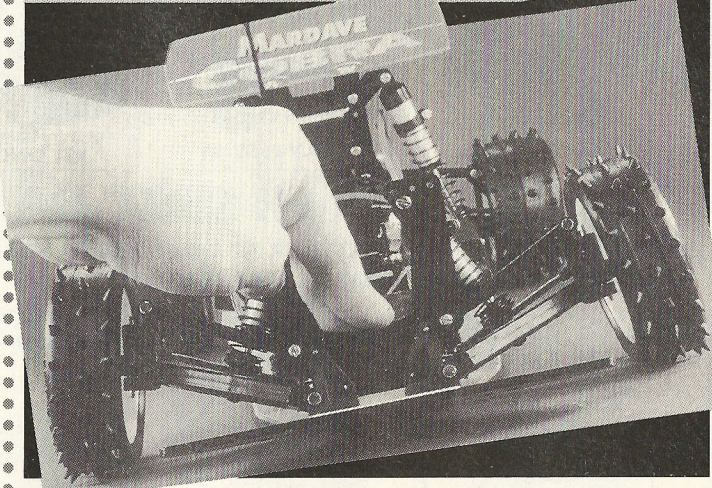
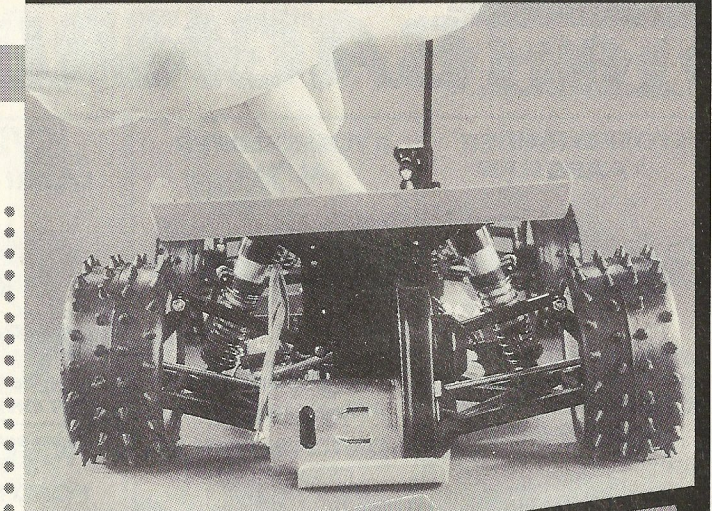
The required nicad battery (not included in the kit) is held in place along the length of the chassis by two mouldings which are secured

by four countersunk screws. A swinging clamp arm is fitted to the front moulding which is used to keep the nicad in place when used.

As stated at the beginning of this review, the Sport contains a motor and a speed controller. The speedo is a simple mechanical unit with three forward and reverse speeds and a pair of resistors. All of this is pre-assembled and is fitted to a long aluminium plate which is located to the side of the battery compartment. The required servo will also mount onto this plate but is dealt with later. A little bit of soldering is required in order to connect the motor to the speed controller.

The shock absorbers are long throw oil filled units (oil not supplied) and are relatively easy to assemble. Remember to coat the piston shaft with a small amount of oil before inserting through the O-ring seal assembly because otherwise, the seal integrity may be damaged and the unit will leak afterwards. The shocks are filled from the bottom and sealed by a large O-ring which can become displaced as the shock is tightened up. Care must be taken to ensure that the seal is always seated correctly otherwise leaking will occur. There is a definite knack to filling these shocks which may take a couple of attempts to acquire. Once the shocks are located into position (note the front shocks are behind the shock mount), all that is required is to fit the wheels and tyres (big long spikes ideal for grass use) and to fit the Radio equipment.

Without including the bodyshell and wing painting, the complete car only took approximately three hours to put together. There was very little cause for concern in the assembly except for the bellcrank rubbing against the chassis. The suspension pins work well enough as stated earlier, but I feel that a kit of this quality could certainly bear the fractional extra manufacturing cost that would be incurred by adding small returns to the suspension pins to aid disassembly and re-building. It is very difficult to fault this kit either as a concept or as a functional model car. It exists in a niche in the market which is currently under-exploited. A quick glance down the spares list would have any accountant jumping with joy as the majority of parts cost up to two pounds! Only big items like



and free from grease when the tape is first applied. The bodyshell and wing are the standard Cobra TQ items which only require cutting out, masking and painting from the inside. A decal sheet is provided and can be utilised to add a more personal touch or to cover up painting mistakes!

Conclusions

One of the greatest assets of the Sport is that it can be totally upgraded, at any time to TQ specification, thereby allowing your car to improve as you do. In my opinion, the Cobra Sport is as good as its upgraded brother-the TQ, if not better because of its target market - the novice class. A totally competitive, upgradeable, 2WD racing buggy which can be completed, including nicad and R/C gear for less than £150.00 has got to be a winner! Mardave are the outright masters of bringing new people into the Sport and this latest kit will certainly be able to do that - highly recommended.

Needed for completion

- 2 Channel Radio
- Nicad Battery
- Paint
- Shock Oil
- Small Hand Tools