Carbon Fibre Chassis

This is not a particularly regular inclusion in Tamiya kits, basically becauseit is a very expensive item, and Tamiya are concerned with keeping the prices of their kits as low as possible (Maybe this is why they sell so many of them!). However, if you are going to market a car as a serious race contender it needs to be of the highest specification possible, hence the graphite chassis.

It has to be said that the double deck unit provided in this kit is one of the nicest looking chassis I have seen offered on a model car kit, the quality of the materials and manufacture is superb. The chassis has slots cut in it to accommodate saddle pack batteries, and they are nice and near to the centre of the car, which should make it really stable, yet responsive. If you don't want to or can't make use of saddle pack nicads, two small plastic mouldings are included to allow 'stick pack' batteries to be used. This is a very good idea indeed.

THEORY OF EVOLUTION

REVIEW BY ROBERT HOPKINS

After the release of a number of beautifully detailed 1/10 scale on road F1 electric racers, this is the first 'off road' buggy to come from the Tamiya factory for some time.

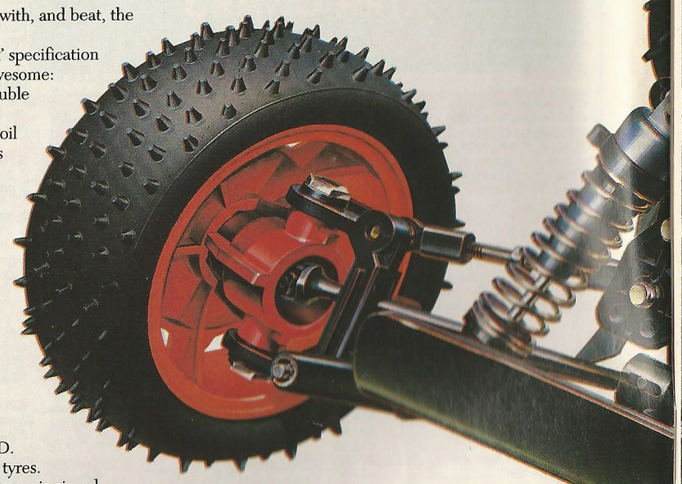
The Top Force Evolution (henceforth known just as 'Evolution') is an upmarket, higher spec, meaner, leaner, racing version of the highly successful and popular Top Force. The Top Force has been on the market for some time now, and has found many happy drivers at all levels of competition, due to its simplicity of design, and sheer ease with which it can be driven and set up.

The Evolution has many of the aftermarket 'up rate' goodies that were available for the 'Top Force', as standard, and a few more besides! The Tamiya team drivers from all around the world have played a part in the development of this car, and it is now Tamiya's most 'race tuned' car on the market. It has all of the bits and pieces to enable it to compete with, and beat, the best of the rest.

The 'out-of-the-box' specification of the Evolution is awesome:

1. Carbon Fibre double deck chassis.
2. Hi Cap coil over oil filled shock absorbers all round.
3. Fully ballraced.
4. Front and rear metal Universal Jointed driveshafts.
5. Ball differentials front and rear.
6. Beautifully fitting polycarbonate undertray and bodyshell.
7. Adjustable turnbuckles.
8. Shaft driven 4WD.
9. Pin spike rubber tyres.

° Note: Because this car is aimed at the top end of the market, the user is expected to fit their own preferred radio gear and motor. Therefore no motor or electrics are included in the kit.



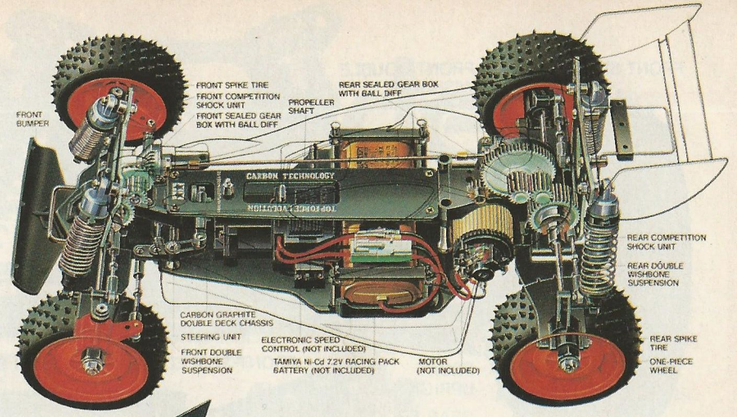
TAMIYA

TOP-FORCE

Hi Cap Shock Absorbers

Despite the hype given to Associated and Traxxas shock absorbers, the Tamiya Hi Cap units are among the best on the market. Their operation is super smooth and consistent, and they do not leak! One really excellent touch with this kit was the fact that the shock absorbers came with all the nasty little, fiddly 'O' rings and spacers already built into the metal body. This takes care of one of the most tedious jobs when building buggies, and I give Tamiya ten out of ten for this one.

As with some other kits (Yokomo and Schumacher), spacers are provided for the shock absorbers to allow different amounts of ride height to be dialled in. The other popular method used by Associated and Losi is adjustable collars, although I personally prefer the method Tamiya have opted for with this car.



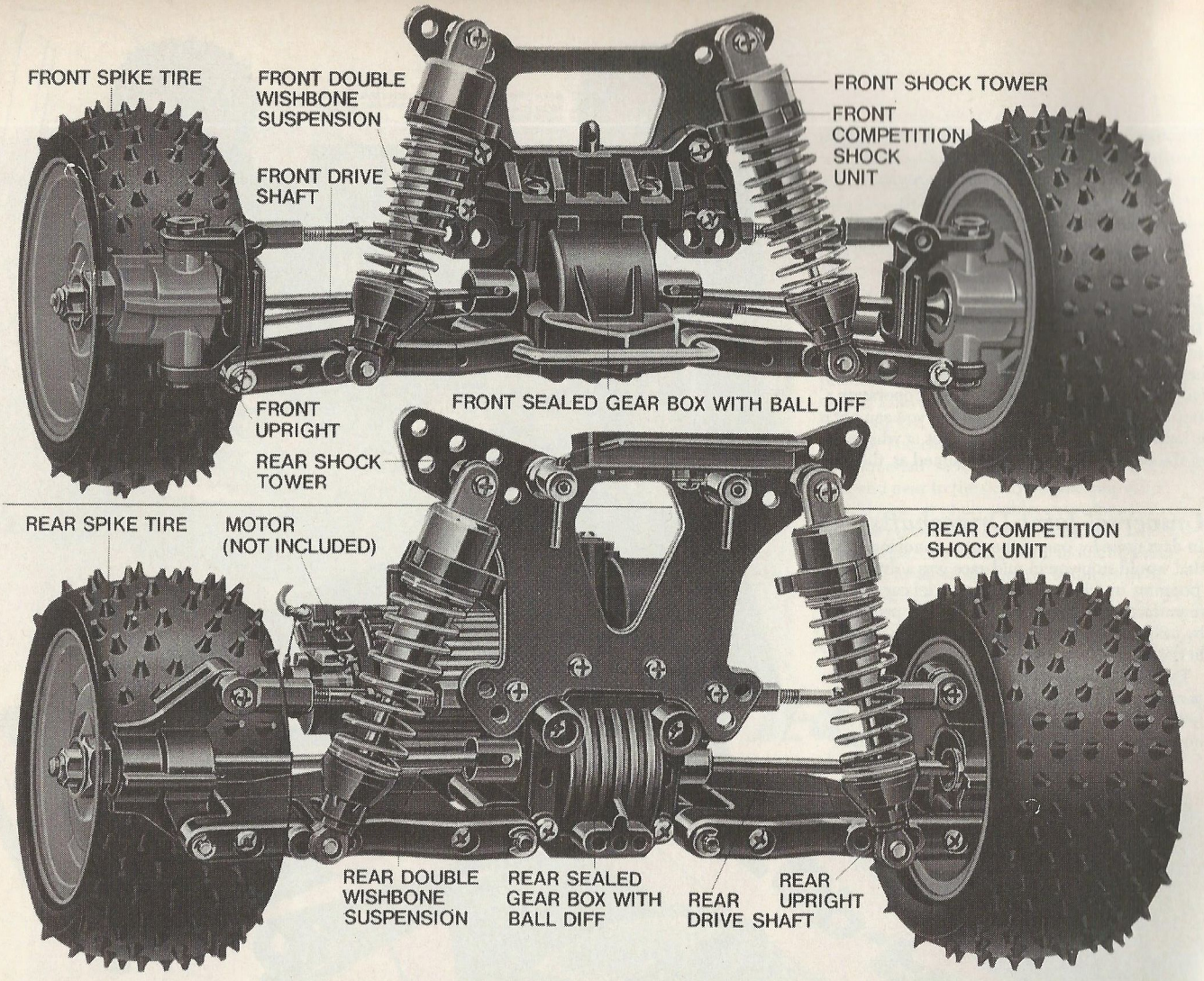
Fully Ballraced

To say this car is fully ballraced would almost be an understatement! 26 fully sealed high quality ballraces are used in the kit, even the steering is ballraced for maximum efficiency of operation. If it moves, turns, rotates or slides, you can bet it is ballraced. This simply underlines at what end of the market the Evolution is aimed at, the top!

Universal Joint Driveshafts

In days gone by, one of the most annoying things that would stop you in mid-race was a driveshaft 'popping' or falling out. Many model car manufacturers have taken care of this problem by utilising U.J.'s (universal jointed) driveshafts in their kits.

The Evolution is no exception, and makes use of some of the best quality metal U.J.'s this reviewer has ever seen. What is extra impressive is the fact that the U.J.'s are used at the rear of the car as well as the front. This



THEORY OF EVOLUTION

makes the car that little bit more reliable and efficient.

Polycarbonate Body, Undertray and Wing

One of the things that Tamiya are most famous for with their kits is the sheer precision and quality of the finish of the pieces in their kits. None of the plastic pieces, no matter how small or insignificant, have any flash at all on them.

There is little doubt in my mind that the bodyshells and polycarbonate mouldings offered with Tamiya kits are the best available, anywhere. The polycarbonate used is of the best quality, and the mouldings themselves are absolutely superb, both in detail and shape.

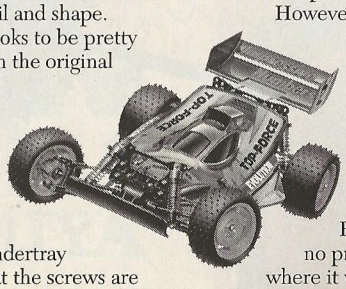
The body on the Evolution looks to be pretty much the same as that found on the original Top Force, as does the rear aerofoil/wing. An undertray is included in the kit to mate up with the body to form a fully protective cover around the electrics. The undertray is secured to the chassis via countersunk screws, and the undertray has small mountings in it so that the screws are flush, and the bottom of the car is absolutely flat. It really is quality design.

Shaft Driven Transmission

The transmission system used for the Evolution is pretty much the same that has been used on a number of their previous 4WD cars, utilising a wire centre prop shaft to transmit power from the rear to the front wheels.

Adjustable ball type differentials are used at the front and rear of the car, with the front gearbox utilising a one-way roller bearing to make the car faster through corners. Nearly all top line racing 4WD buggies use a one-way system of some description. I feel that the drive train is quite noisy, and not as efficient as it could be when compared to, say, the Tomy Intruder.

However, it doesn't seem to make all that much difference on the track, as the Top Force can be found in A finals at all levels of competition.



Building the Evolution

Building the Evolution posed no problems at all. Everything fitted where it was supposed to and there were no bits missing.

There were even a few spares of the smallest, most 'loseable' screws and E clips. Be careful when building the ball differentials though, because there are some very small balls used in the thrust race assembly, which could be lost. I always find it best to work on a tidy worksurface, on top of a nice clean white towel. If anything gets dropped or falls, the towel stops it from bouncing away, and being white, bits are quickly and easily identified.

Total construction time (less the painting and decorating of the body) was around six hours. The stickers provided in the kit are really nice, and there are plenty of them. The best effect can be achieved by painting the body one or two colours and using the orange and yellow stickers supplied. To power the beast I used Galeforce nicads, LRP LE25AMS speed controller and Black E motor, Sanwa ERG-XS servo and a Futaba micro 40 mHz receiver. There was enough room on the bottom chassis plate to fit everything, so the centre of gravity was kept nice and low.

Our Theory on the Evolution...

Driving the Evolution produced no surprises. I expected it to be good and it was, very good. The car soaks up the bumps with ease, giving a very smooth, stable ride. Turn-in is equally as impressive, with the car remaining glued to the track at all times. Speed was excellent, and although the drive train was a little noisy (which I personally find a little off putting), the car lasted well on the fairly high gear ratio. Incidentally, two pinions are provided in the kit, and others are available from your nearest Tamiya stockist.

Overall, the Top Force Evolution is an excellent car. It is a definite contender in todays world of high competition electric powered model cars. If you are looking to buy a pro. racing kit, you could do a lot worse than the Evolution — eight out of ten.

Available from your nearest Tamiya stockist through RIKO Ltd.