

Back in 1991, Traxxas was a relatively unknown name within R/C car racing circles when they released their TRX-1 2wd buggy onto the highly competitive Off Road market. However, after landing the 4th TQ time at the '91 IFMAR World Championships in Detroit, Traxxas became, as they are proud to say in their adverts and decals — The team to watch!

Since its debut, the TRX-1 has always been popular with club racers and regional drivers, but hasn't enjoyed widespread success at top level. Its stable, easy to drive design, coupled with superb suspension that soaked up virtually any bump, made it a firm favourite with drivers who lacked the know how, time or experience to make other cars work. However, these features probably worked against the TRX-1 when established top drivers tried the car, as many found that its lack of steering response and general dislike of speedy directional changes tended to work against it. The TRX-1's long graphite chassis and wide suspension arms provided great stability on large and flowing tracks, but throw in a tight, high grip English track and the result was often a frustrating time behind the sticks, despite a set of feverish thumbs working overtime!

The design of the TRX-3 is, we have been told, a result of collating input from Traxxas TRX-1

design which, when joined together by the moulded side plates, provides an immensely rigid 'box section' chassis that reminds me of the old box chassis designs used on PB 1/8 scale cars some years ago. The chassis is also about 1/2" shorter than that of its predecessor, this reduction in wheelbase resulting in improved steering and general overall response.

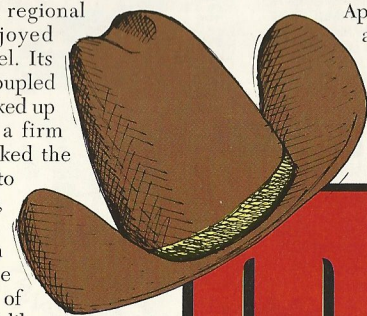
The front suspension has also received some 'surgery', with regard to improving the steering response further still. The swept front arms are now about 1/4" shorter than before, the shorter arms providing more response and recovery during cornering, although a narrower track can, in some cases, make the car more twitchy.

Apparently these new arms will also fit on the TRX-1. The front track is narrowed even further with a new one piece front bulkhead,

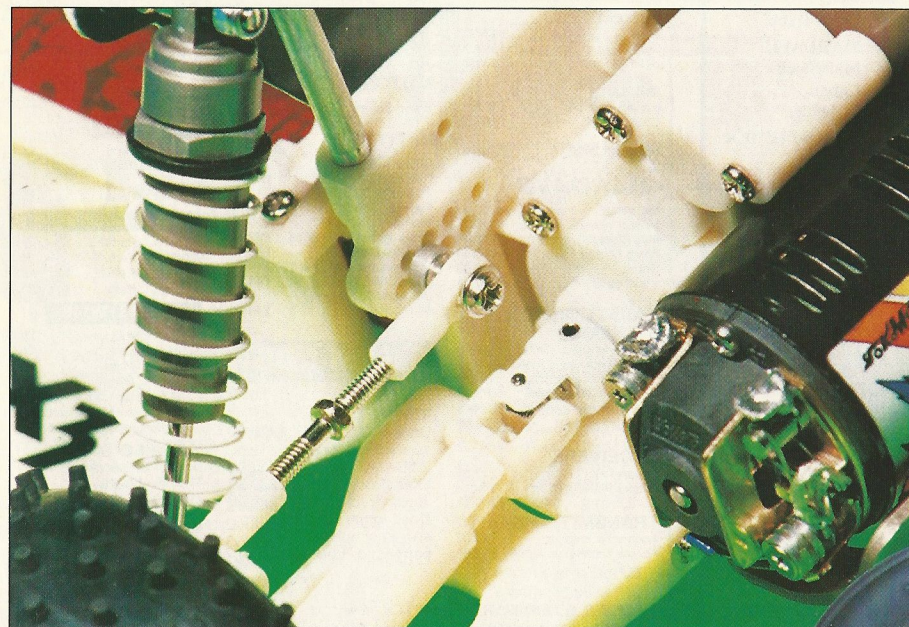
different bulkheads could be moulded with various amounts of kick up angle. Do Traxxas plan to market such things I wonder?

New design castor blocks are now used, offering a range of adjustments. The kit comes supplied with 30 degree blocks, although 25 degrees are available as an option (the latter will, I think, suit UK tracks better). Two camber link holes are provided rather than the customary one, offering different positions for the camber link inner and outer.

Another new area of adjustment is the steering block itself, which can now have its height adjusted within the castor block via various shims. This facility, we have been told, enables the user to set the correct ride height when using different diameter front tyres, and is an adjustment that will alter the cars roll centre and the amount of camber change. If you didn't have much in the way of adjustment before, prepare



TRICK TEXAN!



The rear suspension top link has so many options available for its pick up point you are definitely spoilt for choice! The gearbox in the TRX-3 is slightly rearranged from that seen in the TRX-1, but retains very similar internals.

yourself, because the TRX-3 has more than enough now!

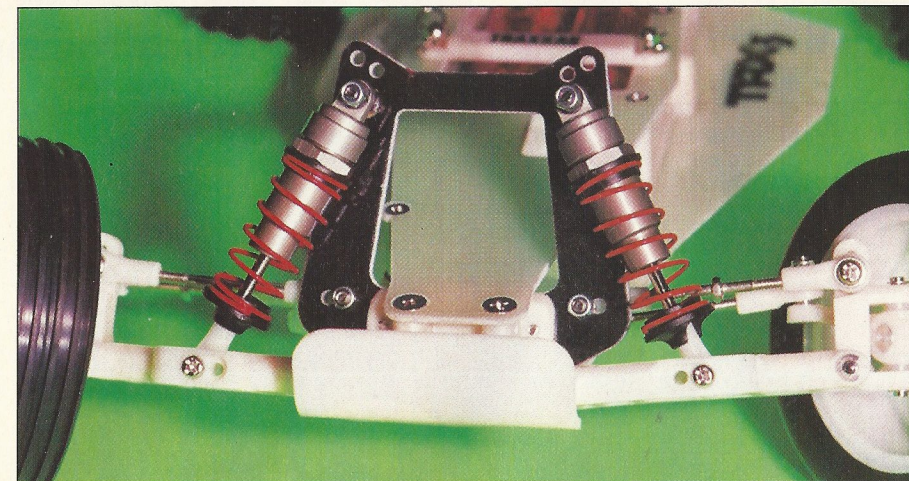
Already hugely popular, Traxxas have also improved on their original shock absorbers (is this possible?). The shocks provided with the TRX-3 feature larger diameter, hard anodised and teflon coated bodies plus new shock pistons. The pistons having holes in them rather than a notch, providing more consistent damping and smoother operation. A greater oil capacity within the shocks has helped reduce changes in the damping over bumpy tracks — long shocks are

drivers, from the Team itself through to the general racer (this is in the US, although I would imagine they have encountered the same problems as TRX-1 owners in the UK).

The Heart of the Improvements

The long graphite chassis that was a big feature of the TRX-1, has now been replaced with the new GRP twin deck upper and lower chassis

resulting in an overall width of 93/8" compared to the old TRX-1's 97/8". The bulkhead also provides the kick up angle, 30 degrees in this case, unlike other cars where the chassis quite often incorporates the kick up angle. The only reason that I could think of behind this method of design was that it enabled the use of a cheaper to produce flat chassis, and also



The TRX-3 features medium length shocks on the front, although provision is made on the shock tower for mounting the long versions. Different pick up points are supplied for both the inner and outer joints of the top (camber) link for increased adjustability.

used at the rear, with new medium length shocks on the front. These front shocks are shorter than those used on the TRX-1, as shorter shocks again improve the handling regarding directional changes and the response to steering inputs. The shocks are mounted on a new strengthened shock tower, which incidentally offers holes to provide a mounting for the long front shocks should they be used (nice to think you don't need to buy a new shock tower!).

The steering set up is very nice, with new delrin steering belleranks that are supported both by the chassis and the top plate, adding to the rigidity. Very little bumpsteer is seen throughout the suspension travel, and with the range of holes in the belleranks, different ackerman angles can no doubt be achieved. The kit's steering assembly comes supplied with plastic bushings, although the set up can be upgraded with 5 x 8mm ball bearings.

An initial inspection reveals that the rear suspension is very similar to that of the TRX-1, although a new bulkhead is now used, offering improved camber (top) link positions. Standard wing tubes are now used to retain the wing. A range of suspension arm chassis mounts are supplied with different degrees of toe-in, along with different shims to vary the amount of anti-squat, to provide the user with a number of different options whilst tuning the car for various track surfaces. One thing that was noticed was that the mounting blocks could be mounted either way round, therefore providing 1 degree more or 1 degree less toe-in.

The Transmission

Again, as with the rear suspension, the gearbox appears to be very similar to that in the TRX-1, although the casing and the configuration is slightly different as the gears have been pushed more on top of each other, so that the motor can be positioned closer to the centre of the rear wheels (reducing the overhang of the motor at the rear).

This change should provide more turn-in to corners as less traction will be generated over the rear wheels. Sliding joint driveshafts are retained, although some drivers prefer dogbone assemblies. The outputs from the gearbox are moulded from a delrin material, which appears to be very hard and less susceptible to wear and flexing.

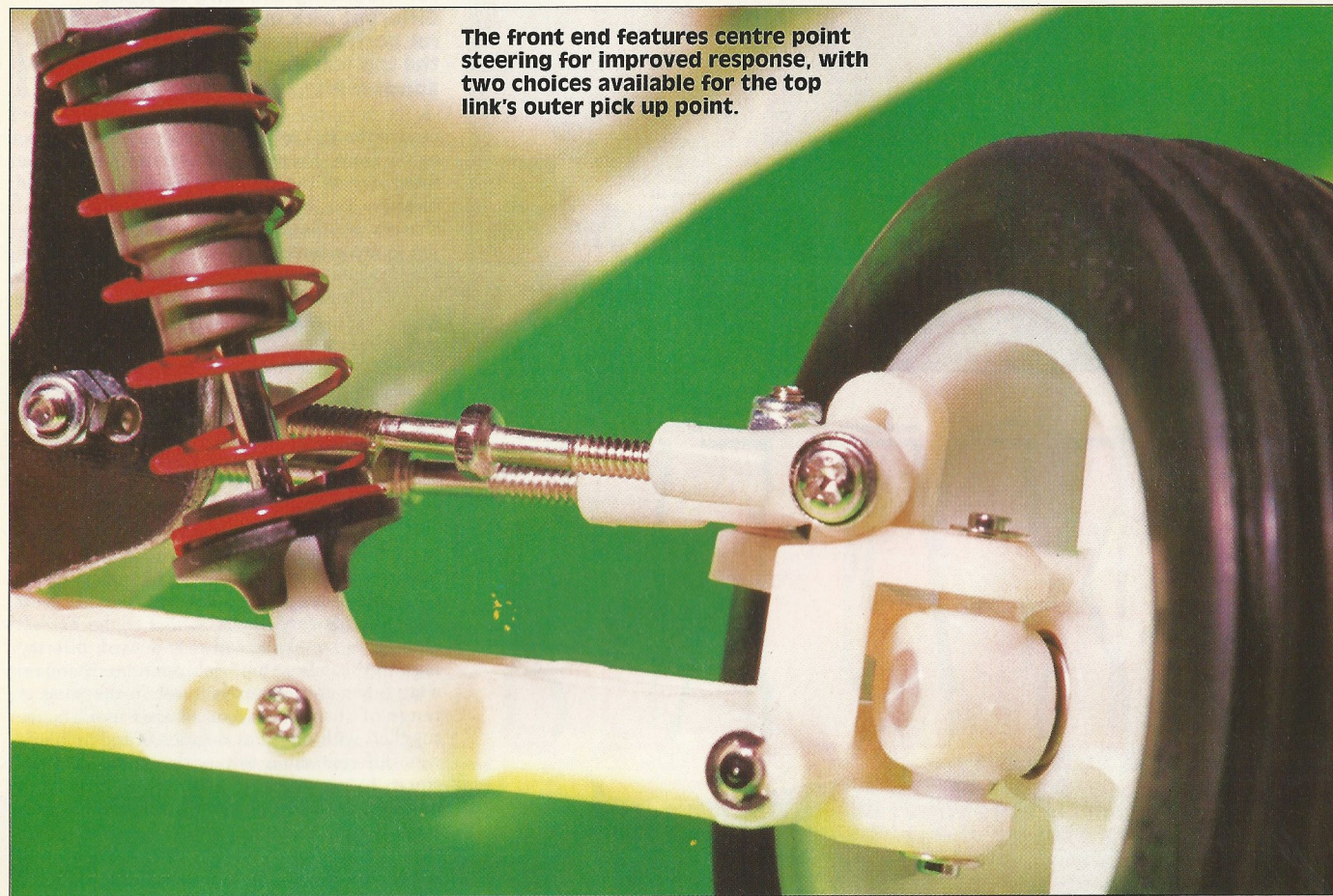
All that remains is the bodyshell, and what an improvement! Personally, I really do like the clean square edged shape of the TRX-3 shell, as it is a more traditional 'scale like' dune buggy shape, rather than looking like some 'Klingon Battleship' from Star Trek! An undertray is supplied as standard which fits closely to the chassis providing great protection from the elements.

Conclusion

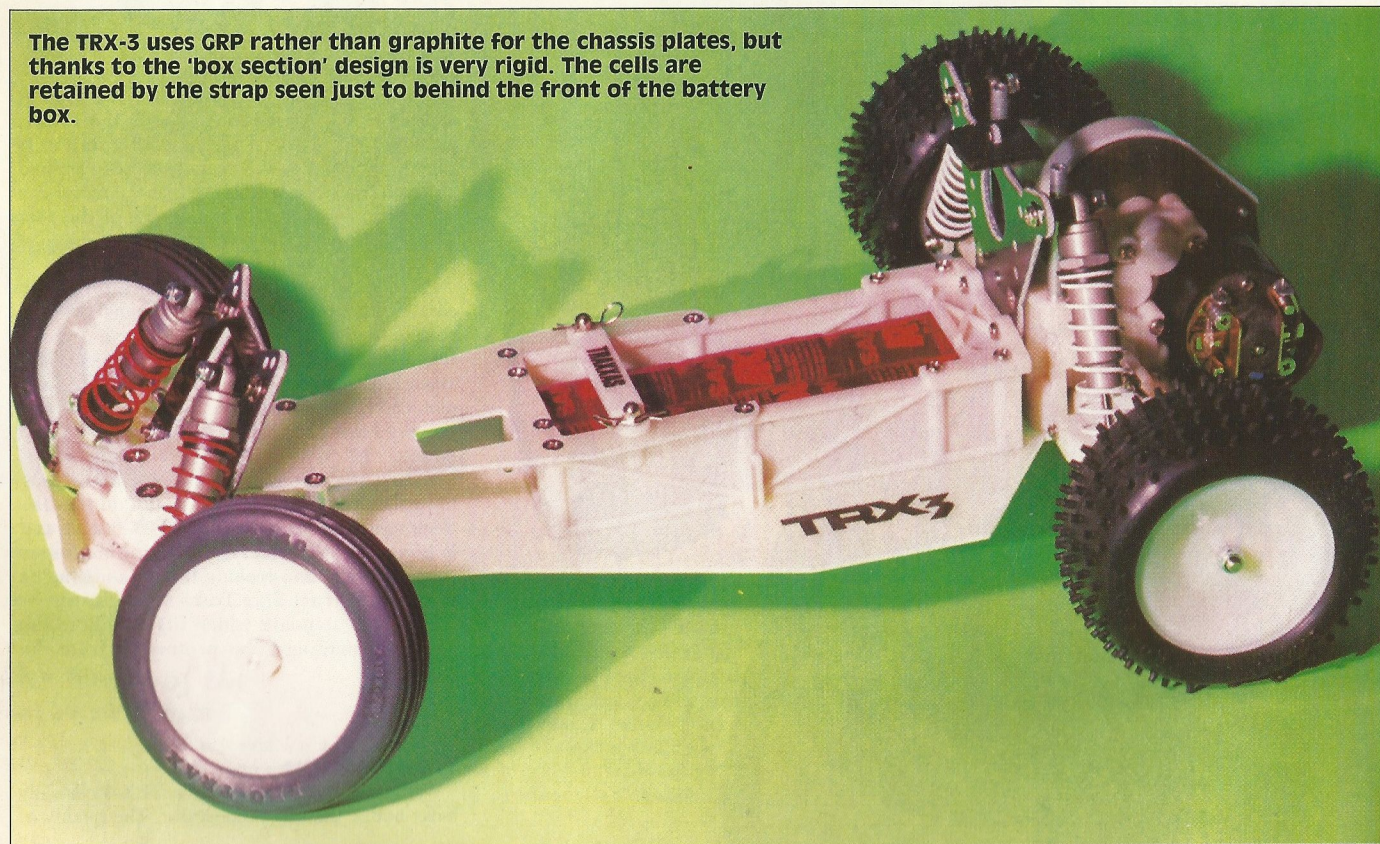
Well, once it's completed, the TRX-3 certainly looks better than its predecessor. The quality of



The Traxxas TRX-3



The front end features centre point steering for improved response, with two choices available for the top link's outer pick up point.



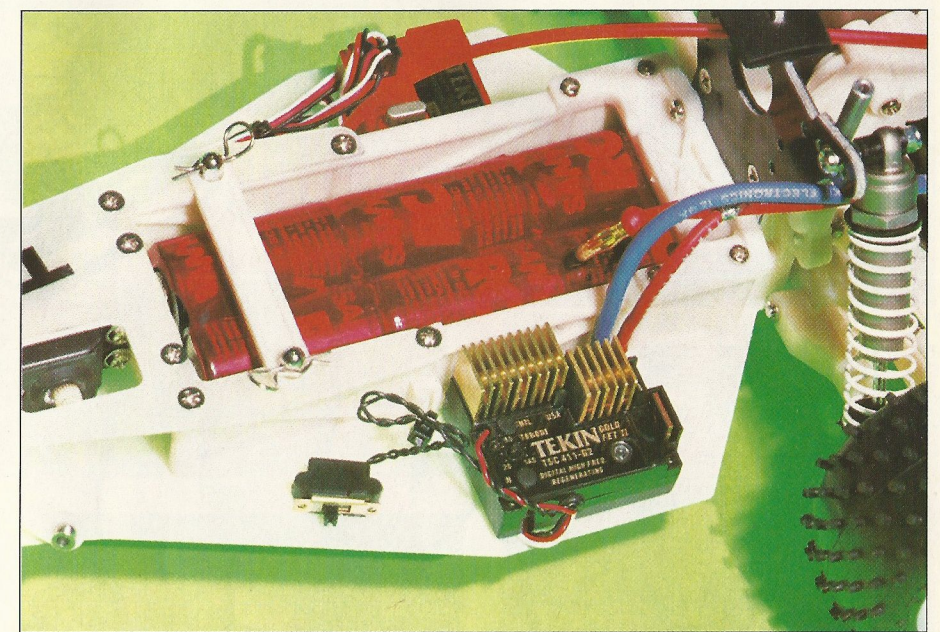
The TRX-3 uses GRP rather than graphite for the chassis plates, but thanks to the 'box section' design is very rigid. The cells are retained by the strap seen just to behind the front of the battery box.

the mouldings was never in question with the first car, and remains so with the TRX-3. There was never any need to open up pivot pin holes etc, so the car was quite easy to put together. Self tapping screws, as used on the TRX-1, have now been replaced with machine screws, although it was very frustrating during the construction to have to keep opening all of the screw bags just to take out two screws for that particular stage in the construction. I would much prefer to have all of the necessary items for each particular stage in the one bag, therefore keep the loose parts/screws around the work bench to an absolute minimum.

Ample room is provided on the lower chassis plate for the speed controller and receiver, although the servo was a bit more of a problem to install as it is sandwiched between the upper and lower chassis plates. I originally tried to mount a large Kimborough servo saver to the servo but experienced a problem with it fouling the top plate as the hole was not really big enough. Also there was no hole provided within the lower chassis to allow a large servo saver to clear it. The pictures in the instructions show the servo using only a servo horn and so none of these problems are encountered. However, I am not that confident with either my driving or that of others and my servo's strength to risk using it without fitting a servo saver!

How is the TRX-3 on the track?

Once this small problem was overcome, the car was taken down to my local track to have its shakedown runs. As with many outdoor venues at the moment, the track was a little damp and sticky to say the very least! However, with a set of Yokomo TR32Ms on the back and a set of Schumacher Blue Minis on the front, we gave the car a 'blast'. It only took a few seconds to realise



The latest GRP lower chassis plate gives more than enough room for mounting virtually any speed controller and receiver. The cut out in the top chassis plate gave insufficient clearance for a large Kimborough servo saver without modification.

that the oil supplied was too thick (the instructions didn't state what weight it was), so the oil was changed to some Associated 25wt. The car certainly turned in to corners more than the TRX-1 did, sometimes too much! The beauty of this new Traxxas car is that as it features so many more adjustments than before, the car can be tuned to the driver's liking very well. The front camber link was repositioned to reduce the amount of camber change, and the outer row of spikes removed from the front tyres. This

provided a much more forgiving car that remained responsive. The stability that was the hallmark of the TRX-1 appears still in evidence with the TRX-3, with it handling the bumps very well, although having added that 'extra response' it was however troubled occasionally upon heavy cornering or landing off a jump, as the front shocks reached the end of their travel before the chassis bottomed out.

Even after just three runs the car shows a lot of promise. It is definitely a real improvement over the old TRX-1, with some very nice features included. There's an impressive range of adjustments to cater for every driver level and taste in handling, although the slipper's adjustment could be better (the rubber bungs supplied aren't all that precise).

The feature that impressed me the most however, is the cost. At an RRP of £188 the TRX-3 is far cheaper than most of its rivals, but nothing has been sacrificed in the way of specification and value. The car is fully ballanced, comes with a range of adjustment blocks and also has spare ball joints, screws and nuts (maybe they didn't check the contents of this kit?). Although maybe not beautiful to look at, the GRP chassis plates are just as rigid as graphite when built into the box section, and so there is no need to buy expensive alternatives. At the price asked, the TRX-3 should appeal to both the club racer and the experienced expert due to its good specification and sensible price, not to mention the taut handling!

The Traxxas TRX-3 is distributed by Traxxas UK, P.O. Box 1128, Winterbourne, Bristol. BS17 2SH. Tel/Fax (0454) 250441, and is available from all good model shops.

The steering assembly is braced by the chassis plate spacers, upon which the bellcranks pivot. The hexagon shaped turnbuckles allow easy adjustment of the tracking and camber angle.

