

# A TAMIYA STUTE



R.R.C. looks at the Astute, a real 2WD racer from Tamiya



Tamiya's distinctive yellow CV shocks support the front end. Really chunky suspension arms show Tamiya's efforts for a hard driving car.



Quick change rear motor position, another Astute feature.



Splined shaft drive to the rear wheel hubs, and single wishbone suspension.



Gearbox design suits quick gear change.

Double bearing front wheel hub.

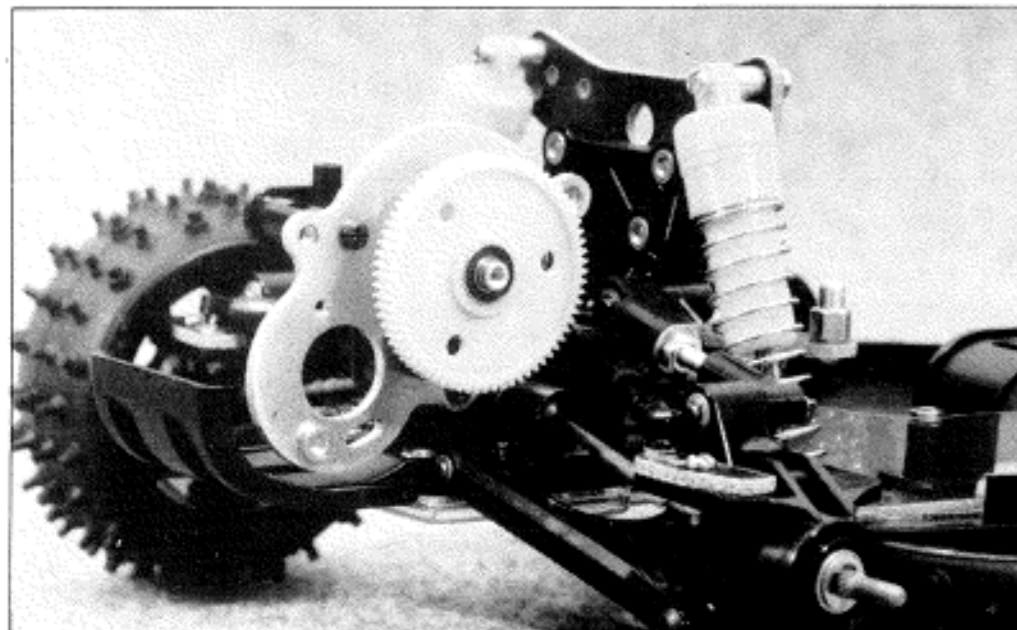
It is good to see Tamiya taking an interest once more in front line, top class racing cars, for in simple terms that is what the new Astute is, an aggressive, 2WD top class competitor from a stable that the world knows can breed absolute thoroughbreds, when it wants to.

There is no doubt about it, the 2WD racing class is alive and well again here in the U.K., there is also no doubt that the Astute will definitely find a very large niche for itself in this market.

Low CG indicates good cornering ability.







#### Assembly

As ever with Tamiya kits you are aided every step of the way with a first class construction guide and instruction list. If in doubt read and re-read the instructions and remember if it doesn't fit it isn't the right place. Construction begins at the front of the car and at once you are treated to the pleasant surprise, all suspension joints are bushed to eliminate play and slop developing with age; this in itself is a superb idea. The very efficiency conscious amongst us may even replace these bushes with bearings at some later date. Front suspension is the now accepted norm of lower wishbone and upper tie rod, again all is bushed in order to eliminate any wear. A front anti roll bar is incorporated in the front end design and works rather than just looking the part; this is removable though, just in case the surface on which you are racing demands a little less rigidity. Damping at the front is controlled by two Tamiya C.V.A. dampers. It must be said that they do work extremely well in all but the worst conditions and are adjustable due to three fixing positions

on both the shock tower and both front wishbones. All of the front end is fitted onto a toe plate, this makes for quick assembly and disassembly should the need arise, especially trackside!

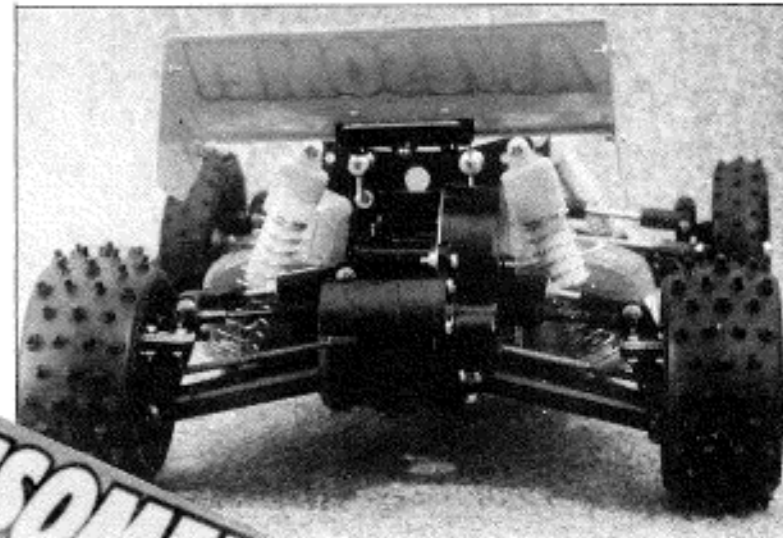
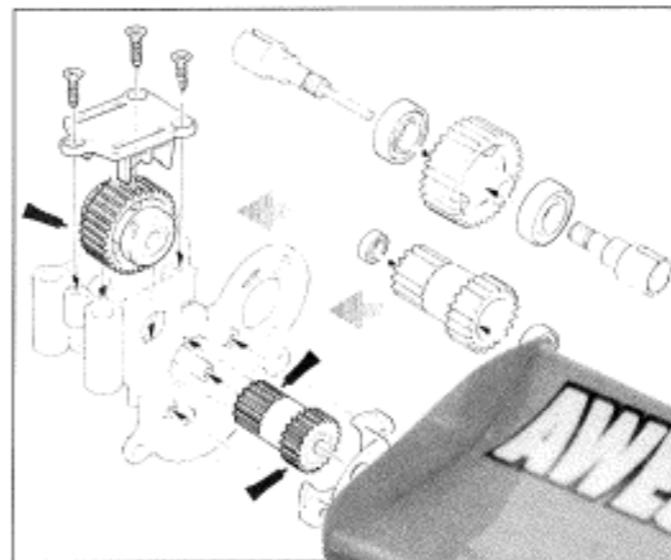
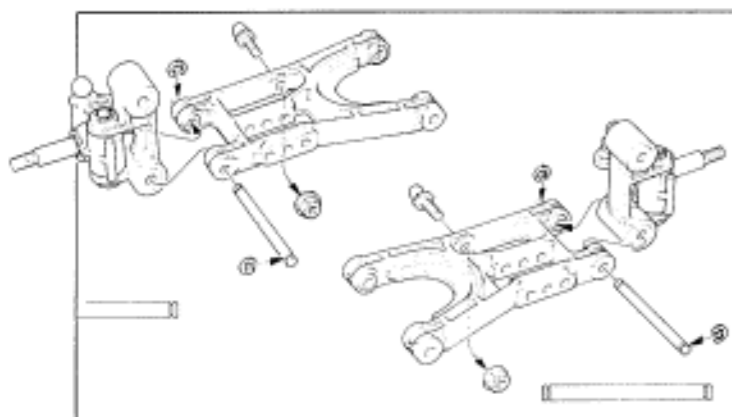
The Astute chassis, again couldn't be a simpler affair, a sheet of fibre glass fashionably dyed black is all that it consists of, simple and effective. The rear of the Astute holds more than a few surprises and is well worth describing in full detail; first and foremost the business centre of the car is the transmission or gearbox as we prefer to call it. Once more the theme of simplicity seems to have been the design watchword here. If low rotating mass is what really turns you on then the Astute will really throw your switches as it has the lowest rotating mass that I have ever seen.

A single ball differential, measuring a little over 50mm and containing nine balls, transmits power to either or both rear wheels. Thrust bearings are situated either side of this diminutive differential and are housed in an alloy casing or diff housing, these in turn hold both the thrust plates firmly

ⓐ Spur gear is ballraced and are of two supplied in kit.

against the ball race by the simple use of spring washers, couldn't be easier. The differential is the only rotating mass housed totally within the gearbox, a ballraced transfer shaft takes the power in via the spur gear, two are provided in the kit, 70 and 77 teeth! And that is all the gear box consists of, as we said it couldn't be simpler.

Rear suspension is again lower wishbone and upper, adjustable, tie rod, again it is fully bushed and could be ballraced if you wish. There is also one other very interesting and very adjustable point inbuilt into the Astute's rear end, namely a diagonal tie rod that can be adjusted to alter the toe in/out angle of the rear wheels. This adjustment point is or can be a critical adjustment on the car as the amount of toe in governs both the amount of rear end grip and straight line stability. Unfortunately there is no hard and fast rule that we can say down here as to how much toe in to use, the amount will vary in many different factors, driver ability and track



surface being the most important two, however a good starting point on a fairly grippy track would be about three degrees after that, only individual preference sets the final amount. The rear shock tower is also both for height, infinitely adjustable, upper tie rod and shock absorber position.

All this makes for a car that can be precisely dialled to any track.

#### What Else?

The Astute comes in kit form complete with mechanical speed controller and standard Mabuchi 540 motor

ⓑ The bare bones are simple, efficient and will without doubt win some major titles this season.

so simply by adding radio gear you can be away. We decided to use a slightly hairier motor and opted for an electronic speed controller, there were no problems encountered in fitting either of these, the cross chassis stick pack cell arrangement left plenty of

ⓐ Astute's business end is well protected by a full width bumper.

room both at the front and rear of the chassis.

#### Summary

Without doubt there are many features built into the Astute that give excellent value for money as well as excellent performance for any driver. We particularly liked the two post linked steering arrangement, it gave an enormous, usable amount of lock, extremely useful under most infield situations. We liked the basic simplicity of the car's whole layout especially the gearbox, we particularly liked the bushed suspension at front and rear, this really eliminates play now and in the future after several months hard racing. We do feel that a little more guidance could be supplied via the instructions concerning the toe in/out characteristics of the rear end.

Having said all that we still feel that next season you will be seeing the Astute feature in tech charts at all levels. The Astute is a first class racing car for drivers of all abilities and should last a long, long time.

Available from your nearest Tamiya stockist. ○

