

Toyota Land Cruiser

John Cundell has some fun with this 1/10th scale electric Off-Road stunt machine



AMERANG

AT FIRST SIGHT of this model car kit you might be forgiven in asking the question, 'Why have "you-know-who" brought out another stunt and Off-Road vehicle?' A closer inspection reveals that the company is not who you think it is, but the *Tokyo Marui Plastic Model Co., Ltd.*, and that the model is the 'Toyota Land Cruiser Stunt and Off-Road Radio Control Race Car' at the usual 1/10th scale. The full colour box, instruction manual and internal component packaging is an undisguised copy of the successful Tamiya format — the sincerest form of flattery?

So how does the 'Land Cruiser' measure up to the opposition in terms of construction and operation? The overall answer is very well indeed, and there are a number of nice touches that demonstrate considerable design thought which facilitate building and running of the 'Land Cruiser'.

Making a Start

The Editor, as usual, wanted the review two weeks before the kit was in my hands, so I made the grand, unanimous gesture of agreeing to take the 'Land Cruiser' on holiday. Apart from making a welcome diversion from

lazing in the sun, this scheme offered the chance to evaluate how complete the instructions were in regard to the list of tools required over and above the spanner, adhesive and grease supplied in the kit. The usual items were screwdrivers, pliers, and knife. Nothing else was suggested, and nothing else was required, not even a soldering iron to connect the motor wiring to the speed controller. How? — later.

I had sorted out a Futaba 2 Channel Receiver and a couple of servos and battery box — oh, and threw in brushes and paints. The latter are not absolutely necessary as the body moulding is a tasty off-white and roll bar, etc., is in black. However a touch of colour on the add-ons is very worthwhile and indeed practically mandatory on the driver who is otherwise very anaemic looking.

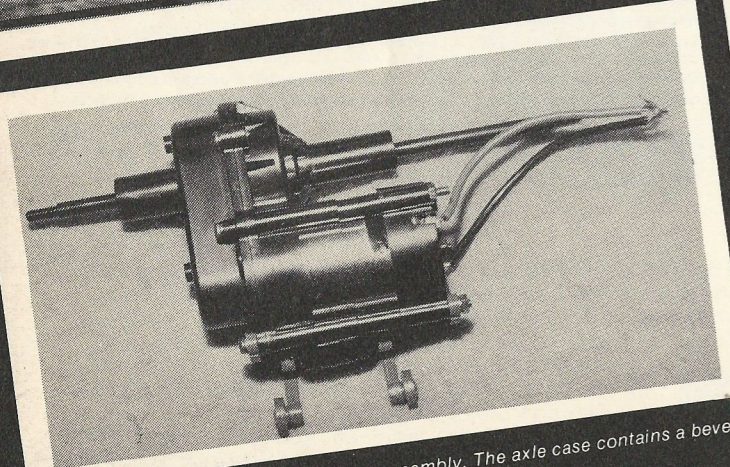
Front suspension, servo saver

All metal components such as stub axles, washers, screws, bolts, etc., are depicted full-size at the start of every assembly section, and all other parts

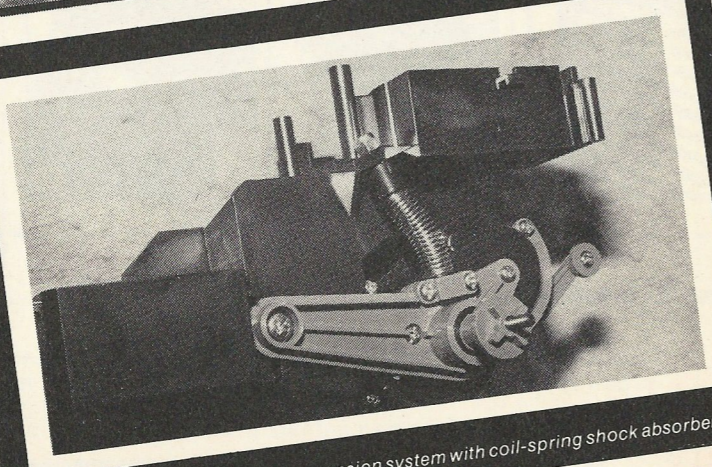
are numbered, so there is no problem in finding the correct parts as required. The front suspension is the standard swinging arm, damped by springs. All components attach to the sturdy plastic chassis and assembly of the king-pin/steering arms is made very easy with two jigs provided. A steel front shaft across the chassis provides a strong fixing point for the front suspension and is protected by the chassis and substantial sprung metal bumper which is added at a later stage.

The servo saver is moulded from nylon and was straightforward to assemble and install using the piece of piano wire thoughtfully provided to retain the spring pressure whilst tightening the restraining nut. A small point but an area which could otherwise be a little frustrating. Top marks for considering the not so adept or well equipped modeller who may not have a junk box of bits and pieces to assist. The servo saver does not fit onto the servo but onto the chassis, allowing a

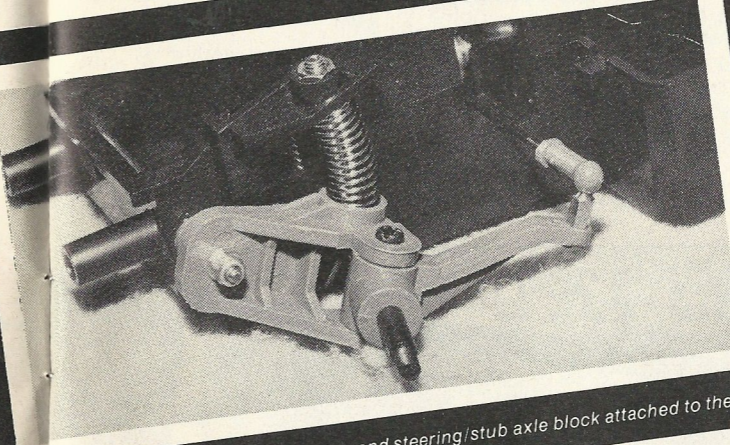
Super Wheelie!



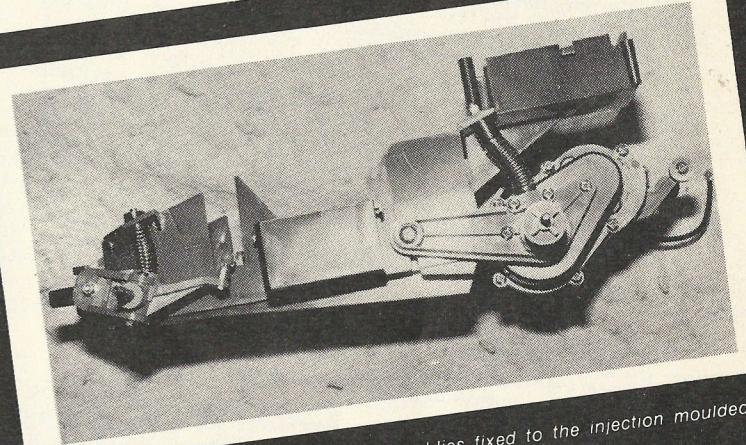
Above: rear axle and drive system sub-assembly. The axle case contains a bevel geared differential.



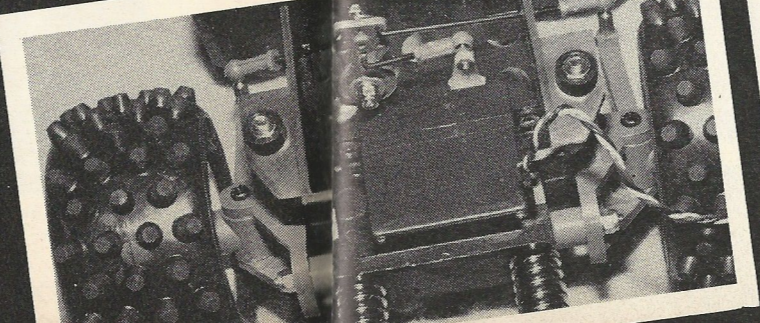
Above: rear trailing arm style suspension system with coil-spring shock absorbers.



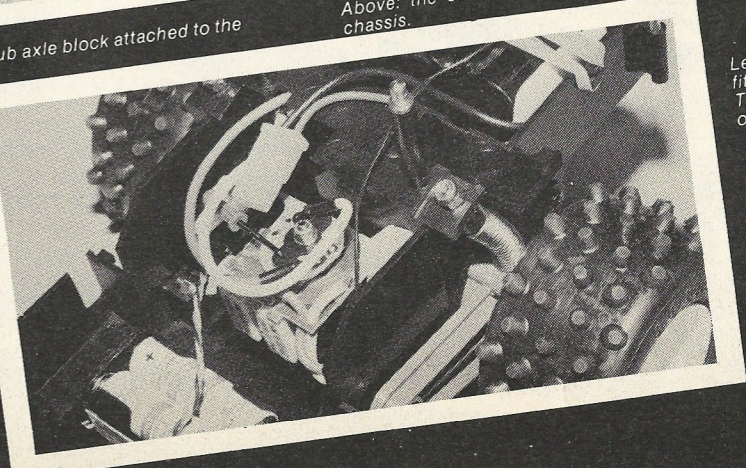
Above: front trailing arm suspension and steering/stub axle block attached to the front of the chassis.



Above: the completed suspension assemblies fixed to the injection moulded chassis.



Right: steering servo-saver arrangement with servo in place.



Left: circuit board style speed controller fits into the centre of the chassis trough. The controller gives three forward and one reverse speed actions.

Track Test

variety of servos to be utilised. I was using normal size servos and there were no problems at all, with plenty of room to play with.

Motor and gearbox

The 'Land Cruiser' kit can utilise either a '380' or a '540' type motor, however the British distributors include a 540 type with the kit.

The motor and gearbox assembly forms a solid axle drive unit clamped between nylon rear suspension arms swinging from the main chassis and again damped by springs. A differential using plastic gears is included in the gearbox. Assembly of the gearbox is straightforward and all the necessary tolerances and clearances are accommodated in the accurate machining of the supplied components. No difficulties were experienced and a satisfactory running test using a single pen cell battery was carried out before final installation of the sub-assembly to the chassis. The assembly also features a nylon, anti-tip and wheelie support. Another thoughtful touch is moulded nut boxes for the rear suspension arms to facilitate tightening without special spanners — only the screwdriver is required. The rear hubs are nylon mouldings and are keyed to accept cotter pins which themselves are inserted into the metal lay-shafts with a pair of pliers.

Wheels and tyres

The wheels are assembled from the usual plastic halves, with a stiffening rim to go inside the rear tyre. This can be a difficult operation and although I managed to insert same without too much trouble, if you experience difficulty, try dipping the insert and tyre into soapy water before assembly. The tyres are studded with round studs which give all-round grip on a variety of surfaces. Both front and rear wheels are secured with Nyloc nuts.

Servos and speed controller

The steering servo is secured by means of double-sided adhesive tape on its side right at the front of the chassis and is connected to the servo saver by a supplied wire link and ball socket.

Speed control is achieved by a resistance type wiper unit which comes ready wired and simply needs to be attached to the servo mounting plate,

Right: the completed 'Super Trail' topped off with Baja 'Jeep' bodyshell complete with spare tyre, dummy winch and petrol can.



again using servo tape. The unit is compact, yet not difficult to assemble and the instructions are extremely concise, not only with regard to assembly, but also with setting up the three forward and one single reverse speed actions.

At this stage it is necessary to connect the wires from the speed controller to the motor. The ends are bared and twisted together, after sliding a length of supplied heat-shrink tube over the wires. The application of heat from a hair dryer or hot air fan rapidly shrinks the tube over the joint and produces a satisfactory join. Of course, if you have access to a soldering iron then use it for a more secure long term join.

Receiver, batteries and drive source

The receiver is servo-taped to the steering servo and the various wires run through convenient slots and holes in the chassis and secured by vinyl covered wire.

The selected positions for the receiver and drive batteries decides whether or not the car will easily perform wheelies. The latter occur with the receiver battery located amidships and with the much heavier drive pack mounted at the rear over the motor/gearbox assembly. The batteries are secured with rubber bands.

For normal off-road driving it is simply a case of reversing the positions of the packs. Incidentally, the car requires a 5 cell pack of 1.2 volt, 1.2 ampere/hour cells. This is available from most model shops.

Body

All that remains is to complete the body by addition of items such as roll-over bar, driver, lamps, winch, spare wheel, petrol cans, etc. If you intend to paint

these, it is advisable to carry out painting before assembly. The model certainly benefits from a spot of colour.

The body tongues into slots at the front of the chassis and is secured at the rear by spring clips through chassis mounted body posts.

Operation

There is a very useful help sheet and fault finding chart with regard to checking out the model before hitting the dirt. Follow this and the first runs should be fault free. Our pictures were taken on the model's first outing. It is very easy to pull a wheelie, in that battery mode, simply by hitting the stick forward. It is not necessary to reverse the vehicle first. Indeed such an action is not recommended and would soon prove very detrimental to the speed controller.

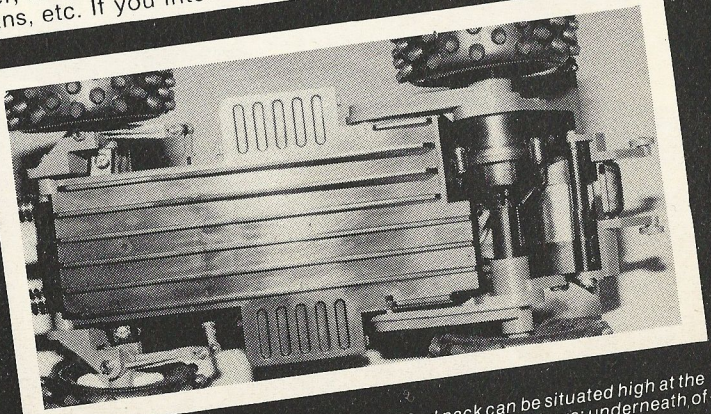
Turning circle is very good and excellent control was achieved on both grass and tarmac surfaces, with no inherent roll-over tendencies. However if the latter do occur, the substantial roll-bar will protect the body and even the apparently vulnerable lights are sprung and can be returned to the upright in case of headache driving.

In the Off-Road mode the 'Land Cruiser' will compete quite favourably with other, basic, '540' motored vehicles and may even be at a little advantage with its good handling characteristics.

All round the 'Toyota Land Cruiser' is an excellent buy, is easy to build with no hidden extras needed, apart from the R/C and drive battery, of course, and is great fun to drive for fun, for demonstration and for competition.

UK Distributor: Amerang UK Ltd.,
Commerce Way, Lancing, Sussex BN15 8TE.

Price: approx. £50.00.



Above left: the completed rolling chassis. The 7.2 volt, six-cell Ni-Cad pack can be situated high at the rear for wheelie operation or in the centre of the chassis for normal racing use. Above: underneath of the 'Super Trail'.