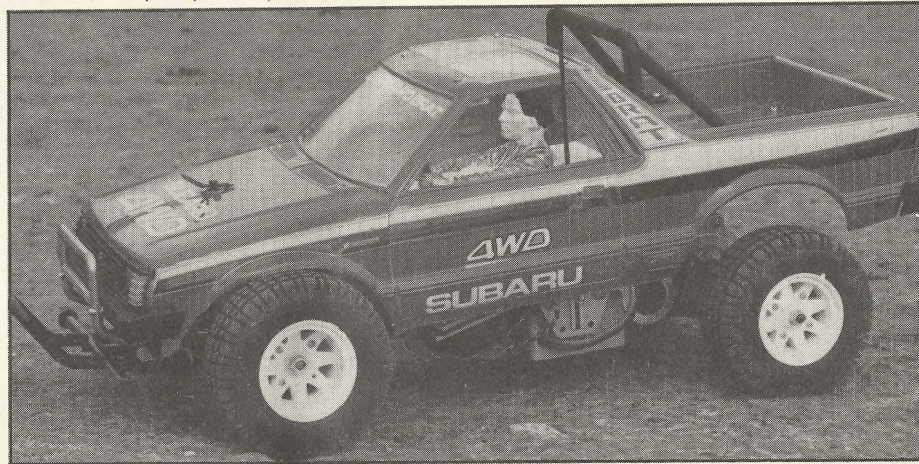
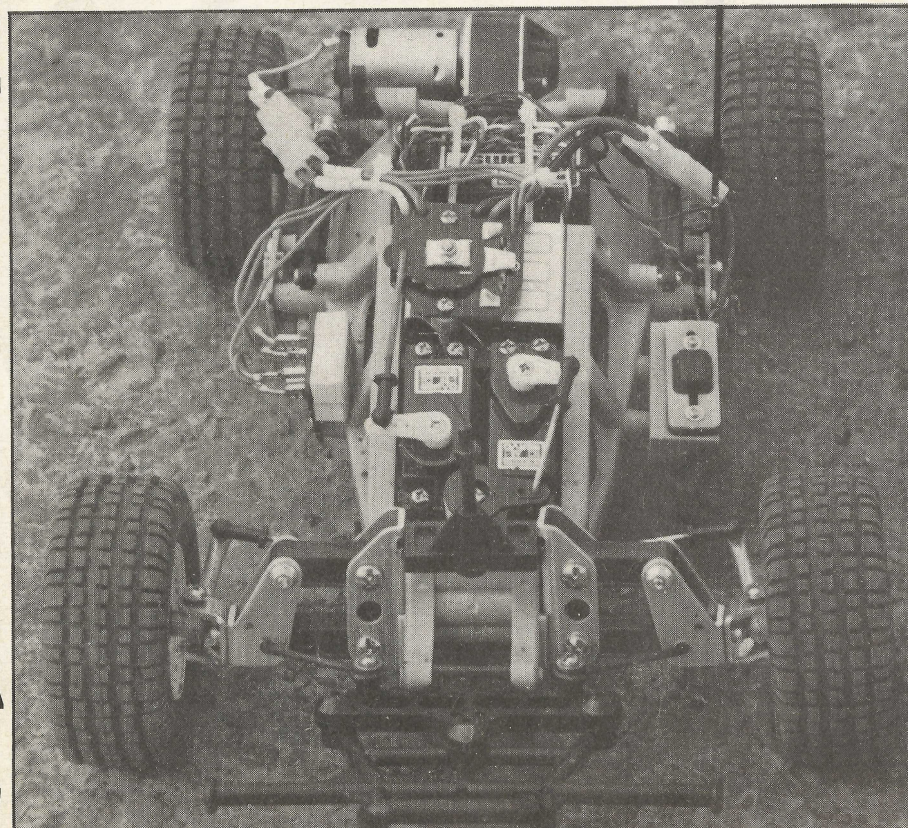


TRACK TEST
CICK TEST
TRACK



SUBARU BRAT

REVIEWED BY BILL BURKINSHAW



To be absolutely fair, this review although written by me was largely conducted by my 12 year old daughter

Assembly

The heart of any car, the chassis is an entirely new design similar to the full-size 'space frame' concept roughly in the form of a parallelogram with necessary mountings for all of the ancilliary parts moulded in. *Tamiya* state that the chassis material is a new type of plastic which, protected as it is by suspension parts etc., should prove to all intents and purposes, unbreakable. Several parts have to be trapped between the two chassis mouldings which are held together by self-tapping screws. These fit easily into the pre-drilled holes and once assembled the chassis is light and rigid.

Model Cars Bi-Monthly

Wheels and tyres are of the familiar three part *Tamiya* type and it is necessary to check carefully that the correct parts are assembled together for front and rear — they are not the same. Standard *Tamiya* ball-races can be fitted to the front wheels and also to the gearbox which is the next item on the agenda.

A plastic core moulding is sandwiched between two pressed metal plates which hold the bearing housings. Moulded nylon plain bushes are included in the kit, but as already mentioned, ball-races can be fitted. The completed gearbox is simply held onto the chassis with four screws making its removal for servicing a very simple matter.

The rear suspension is of the trailing, swinging arm type with spring units cantilevered from a lug on the top of each arm. What appear from the illustrations to be dampers are in fact dummies. They could however easily be replaced with genuine oil filled units. If oil is placed in these units, it will leak out very quickly as there is no form of piston rod sealing. Drive from the hexagon socket outputs of the gearbox is via two short drive shafts with neat moulded rubber boot covers to keep out the dirt. Ball races can be fitted to the swinging arms to support the rear wheel spindles.

Motor and electrics

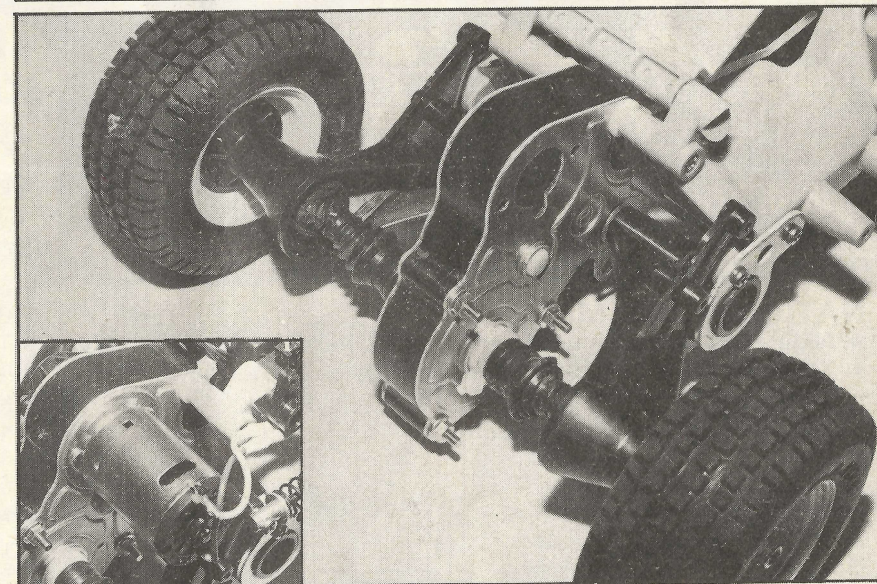
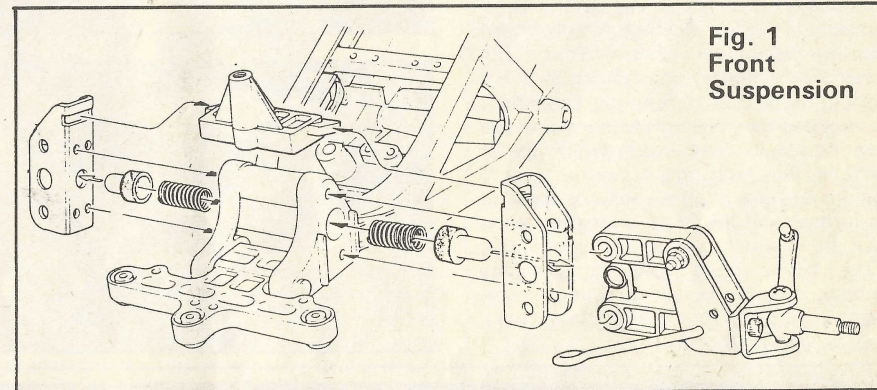
A Mabuchi RS 380 motor is supplied and necessary adaptor plate to the gearbox which is in fact cut out and drilled for the larger 540 type motor. Motor changing takes only a couple of minutes particularly if you fit a plug and socket between motor and speed controller. The instructions show the gear being fitted to the motor with the aid of a hammer! Well, you do it your way, I'll do it mine Mr *Tamiya* — I'll 'Squeeze' the gear on using a vice, for safety.

Speed control is provided for by yet another version of the old favourite three speed switched resistor style of unit. Contacts on these controllers gradually get more and more substantial and this one looks well up to the job. Dual ceramic resistors are mounted out in the breeze on the side of the car. Some soldering is needed, but I suppose in extremes it would be possible to use 'chocolate block' style mains connectors.

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A black and white photograph of a LEGO Technic assembly, likely a motor or actuator, constructed from various grey and black Technic beams, pins, and connectors. The assembly is shown from a side-on perspective, highlighting its mechanical structure.

Fig. 1
Front
Suspension



R/C equipment installation is more or less universal, *Acoms* equipment fits easily as should virtually any other standard two function equipment. Ball joints, pushrods and mounting screws for servo mounting and connection were provided and it was a simple matter to mount and couple up the complete R/C package.

By now it became apparent that the 'Brat'

was just about ready to roll so a preliminary charge of the five cell battery pack was initiated whilst the body parts pack was examined.

Body assembly and finishing

The body is injection moulded plastic, the main part including cab and open rear part has front grill and tailgate screwed on and

the windscreen/sunshine roof transparent parts are bolted on from inside. A driver figure is included which was easily painted using *Tamiya* paint sticks, the remaining parts sprayed using *Tamiya* paint. Two sets of self adhesive decals are supplied allowing a choice of colour scheme, we chose to more or less duplicate the box top scheme. To make the 'sticky' job of positioning the decals a little easier we smeared some washing-up liquid onto the sprayed body which allows the decal to be slid around until the positioning is right. By some chemical magic, the washing up liquid's lubricating effect disappears overnight and the decals are permanently in place.

By now the batteries were bound to be charged and the 'Brat' ready to run.

'Brat' on the track

One doesn't expect a five cell '380' powered car to be super fast, but the 'Brat' certainly isn't slow. Steering control is an absolute delight, very positive. 'Brat' turns better than any previous *Tamiya* car even without the aid of a differential. One might be excused for thinking that very positive steering would make the car twitchy but it isn't. In fact high speed control is very smooth and only if full speed turns are tried on tarmac will the 'Brat' oversteer, even then the oversteer can be corrected.

The three speed controller provides smooth, progressive speed changes, one might be forgiven for thinking that it was a truly proportional controller.

Conclusion

I am sure that the 'Brat' will find itself amongst the cost conscious, 380 minded enthusiasts along with the 'Modifier' who is prepared to increase the 'Brat's' performance. At a reasonable kit price of approximately £50-£60 the 'Subaru Brat' is ideal for the first-time buyer.

UK distributor: Richard Kohnstam, 13-15a High Street, Hemel Hempstead, Herts.

Below: the chassis incorporates and protects R/C System layouts, Ni-Cads and Speed Controller. The Ni-Cad pack is slung underneath the chassis giving a very low centre of gravity. Bottom coil-spring dampers for the rear suspension.

