

THE SAMURAI

4WD

Marui tune into four-wheel drive with their latest 1/10th Off-Road release

WE FIRST BECAME acquainted with the 'Samurai' in the latter half of last year when a visit to UK Marui importers, Amerang, revealed that a new car was on the way.

At the time this new 1/10th scale racing machine was known only by its code name title, BX-434 (what this stood for we never found out). However we were aware that the BX-434 was destined to be four-wheel drive and distinctly Marui in design. A works team with a factory prepared prototype car were also to be in attendance at the IFMAR World Championships in California.

Now with Christmas over and the New Year firmly underway the 'Samurai' is with us and ready for the challenge.

Designer's choice

We published details on the 'Samurai' back in the December '85 issue but at the time we only had brief glances at a pre-production prototype to go on. Nevertheless the drive system remains the same with three geared differentials driven through a ladder chain. The centre differential is adjustable according to the track conditions, loosening the centre differential is advised for smooth, fast surfaces and the opposite for rough or sandy terrain. Marui claim that the inclusion of a centre differential will distribute the drive evenly between the front and rear wheels. By compensating for the difference in wheel speed front and rear, power-on understeer will be lessened.

Lightweight construction is provided through the choice of an injection moulded 'space frame' chassis. This allows the control equipment to be installed within which in turn keeps the weight low down. The suspension system employs oil-filled independent coil-over shock damper units at the rear with a single mono-shock damper at the front augmented by adjustable torsion bars acting on the lower wishbones.

Constructionally speaking

Assembly of the 'Samurai' begins with the front and rear gearboxes and centre differential. A word of warning here. When you come to locate the gearbox output shafts in their carriers with circlips you must watch out that they don't ping off before being fully located. To save you scrabbling around on the floor insert the circlip inside a clear plastic bag.

All the gears are chunky, very clean nylon mouldings. Plastic and bronze bearings support the moving parts and there are a lot of them if you are contemplating a change to ballraces.

The general construction sequence is easy to follow and simple to apply. The majority of the chassis and suspension parts are plastic mouldings and as such are located with various sizes and lengths of self-tapping screws. Take care when applying these in order not to overtighten them in the mouldings and strip the threads.

Grease is supplied for use on all the moving surfaces and it is wise to apply this as dry plastic to plastic and even plastic to metal contact can cause frictional losses to build up. The instructions detail the areas where an application of grease is necessary.

The dampers need to be filled with the oil included in the kit. This is of a thinnish grade (3 in 1) and there is enough for a couple of fills if you are economic. The damper barrels are also fitted with oil bleed screws to drain off excessive oil when the damper piston is fully compressed.

The resistor speed controller is an interesting item; fully sealed and very small. This controller replaces the usual wiper arm type with an in-line operation.

Installation of the servos is very simple as the mounting points can be adjusted to accommodate various servo sizes. A servo saver for the steering servo is also included in the kit.

Finally the wheel hubs are very light one-piece affairs which require the tyres to be glued to them using superglue or contact

adhesive. The tyres themselves are of fairly low profile and feature a difference of the block tread pattern on the inside of the tyre. Make sure the tyres are positioned the right way round!

On the right track

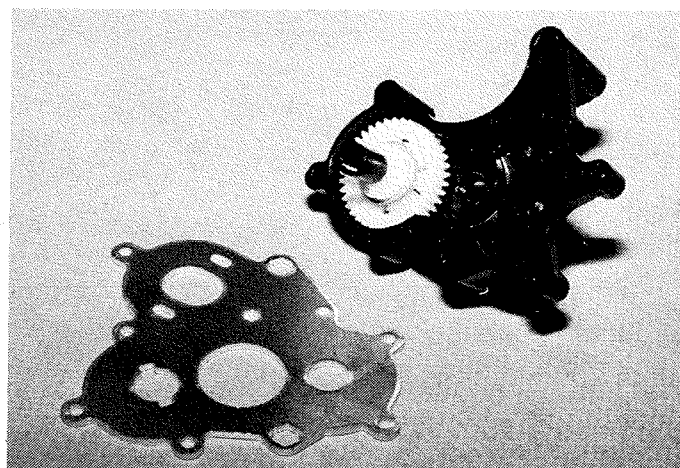
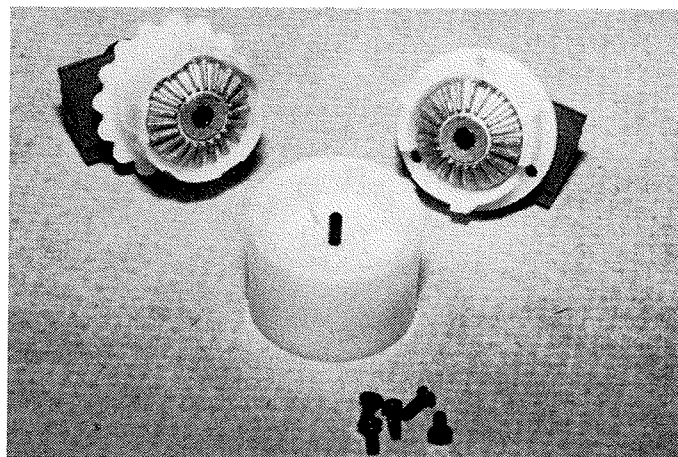
Since our review sample arrived only marginally in time for feature in this issue our track time with this car has been limited. However first impressions have been favourable despite the critical nature of the centre differential setting and the fact that the car is only fitted with plain bearings throughout. One thing is for sure, the car is very light and this alone may be significant in its favour. All up weight is a mere 3lb 6oz ready to roll as standard with scope for further weight loss if you feel it necessary.

Apparently Marui's attempt on the World Championship crown was not as successful as perhaps they might have wished. For which they blamed the driver so we are told!

UK importer: Amerang Ltd.

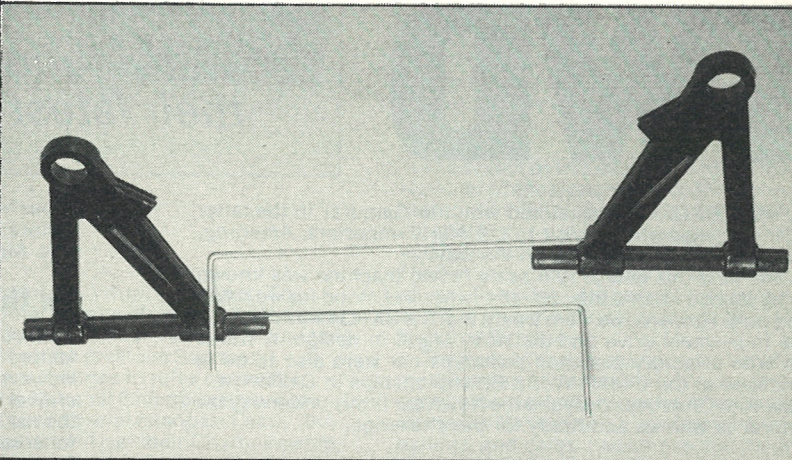
Price: £99.99.

Below: inside the front differential unit to show the two halves of the metal bevel gears. Bottom: assembly of the rear gearbox. The plastic centre which the components locate into is clamped between metal side plates.

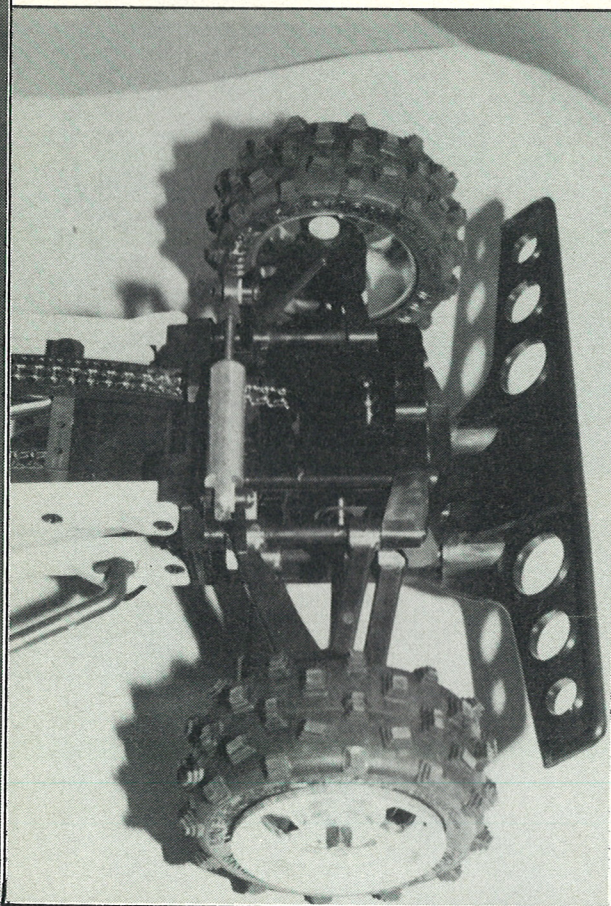


Track Test

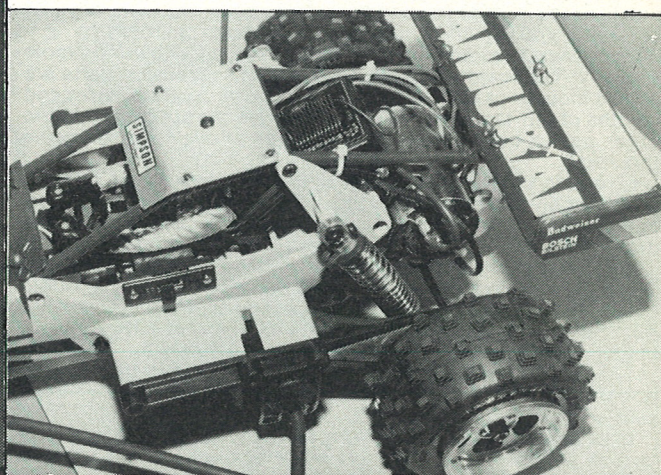
The front suspension features torsion bars acting on the lower wishbones. The tension of these can be varied by adjusting the clamps on the bar ends. By increasing or decreasing the amount of movement of the torsion bars grades of springing between hard and soft can be set.



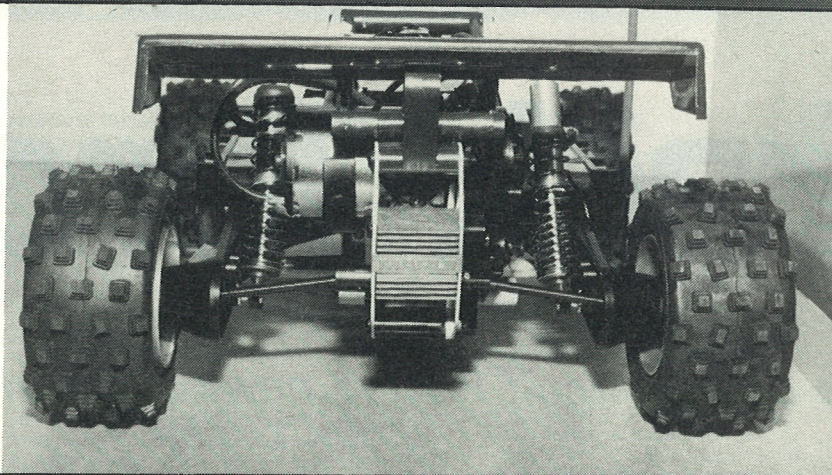
The front-end showing the single oil-filled mono-shock damper located between the upper wishbones.



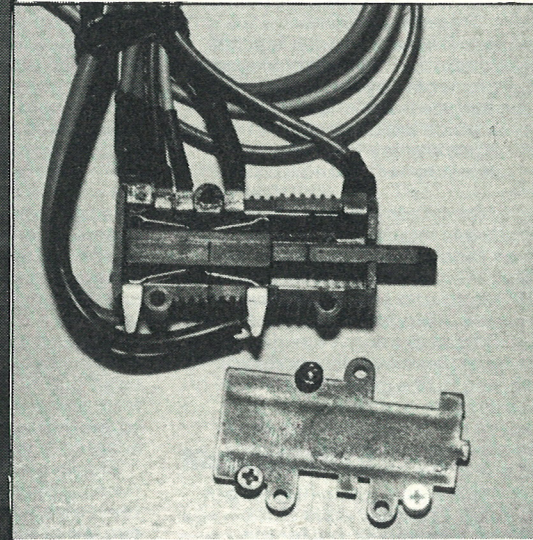
Close-up of the rear damper mounting. Spring tension can be adjusted by movement of the collar up and down the damper barrel.



Rear view: the trailing arm rear suspension gives maximum suspension movement although ground clearance on heavy ground under the gearbox may be a problem. All the drive outputs and drive shafts are manufactured in steel whilst power to the rear wheels is through the eternal Mabuchi black endbell 540 motor. Note the difference in tread pattern for the inside of the tyres, possibly to give some semblance of 'toe in' for straight line stability.



The 'Samurai' speed controller opened up to reveal the linear switching operation of the resistors. The unit is sealed and ready for use.



Under view: the space frame chassis is built in two halves and once firmly screwed together with the gearboxes clamped in between forms a very rigid chassis section.

The battery pack is tie-wrapped across the chassis between the nerf wings with the drive chain looped around.

Adjustment of the drive chain can be achieved by moving the front differential unit backwards and forwards.

The chain must not be set too tight in the first instance. If the chain stretches further than the range of adjustment then it is a simple matter to remove a link.

