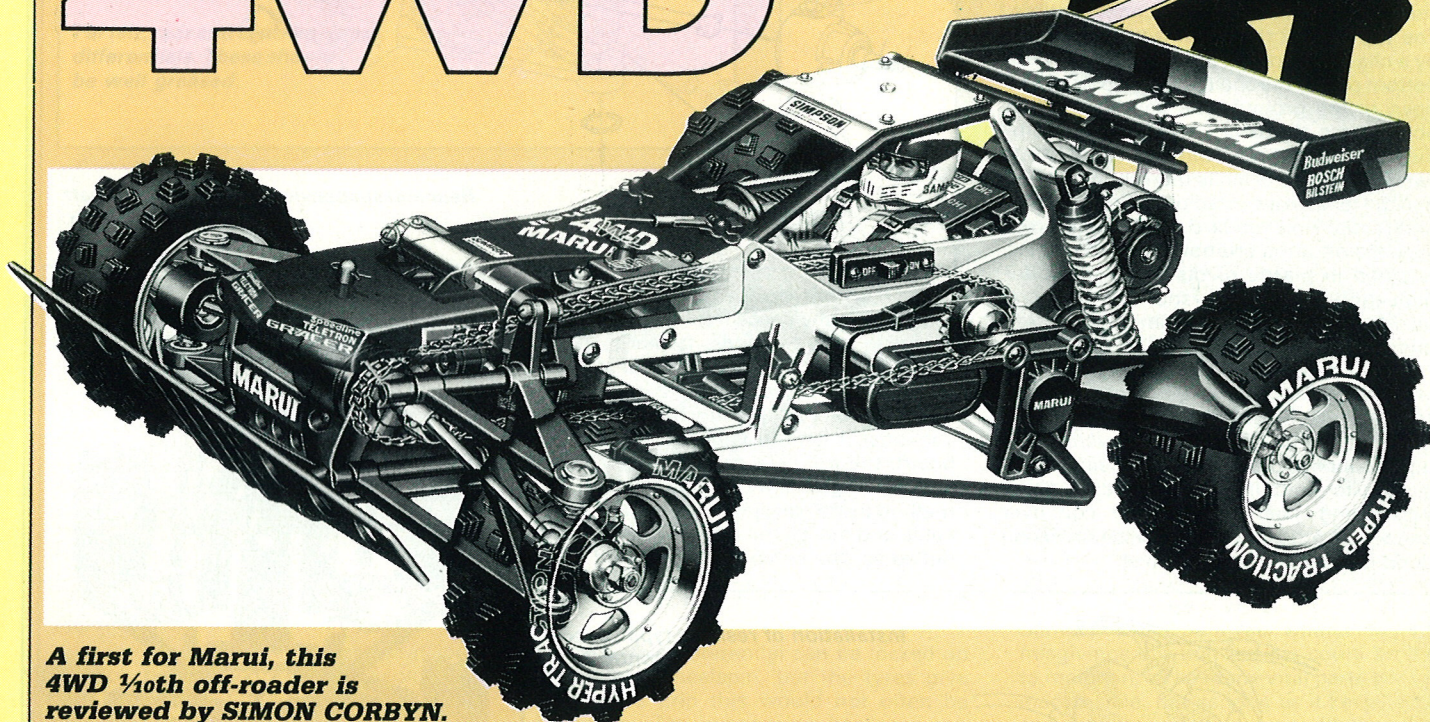
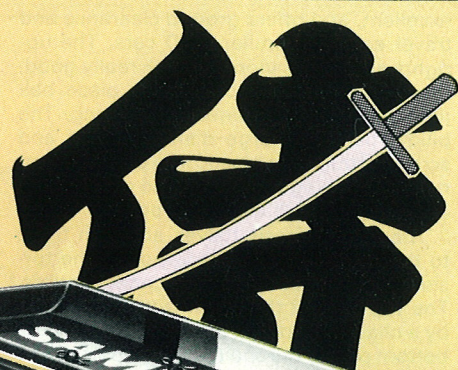


Samurai

4WD



A first for Marui, this 4WD 1/10th off-roader is reviewed by SIMON CORBYN.

The Samurai is the latest release from the Japanese company Marui, who already produce a large range of kits, even though Marui is one of the newer names in buggies. The Samurai is their first kit to feature four wheel drive, and offers a competitive car combined with value for money and reliability.

The manual is well produced, with easy to follow diagrams and special points down a left-hand margin.

The ready-to-assemble kit, the photo shows the good presentation and excellent box artwork.

On opening the kit you realise how well presented it is, with excellent blister packaging, a quick check revealed all the parts had been included. The design of the front differential outlets appears to have been slightly changed after blister packing, and two new parts are included in a bag. It is not really made clear where to use these, or why, but on looking through the manual it becomes obvious. A good idea is the use of combined posidrive/slot headed screws,

this means if the head is stripped, the screw will be easy to remove with a conventional screwdriver.

The first thing to build is the gearbox, it is a plastic/aluminium 'sandwich', containing the rear and centre geared differentials, and the reduction gearing. This whole assembly looks very sturdy and should prove very reliable. A combination of plastic and metal bushes are supplied, and once run-in the gearbox is quite free. Be careful to grease the shafts which run in metal bushes or you risk one seizing up on an early run. The motor/gearbox unit is rather awkward to build, due to Marui's inclusion of blind shafts etc. and in my opinion is far too difficult for a 10 year old, as stated on the box. According to the manual, only Marui's own grease (supplied) must be used, as normal lubricants may affect the plastic, but I tested Triflon on some off-cuts and it seemed fine. Another annoying feature is the inaccessibility of the motor pinion, gear ratio changing is no easy job. It is quite simple to drop the motor screws into the gearbox.

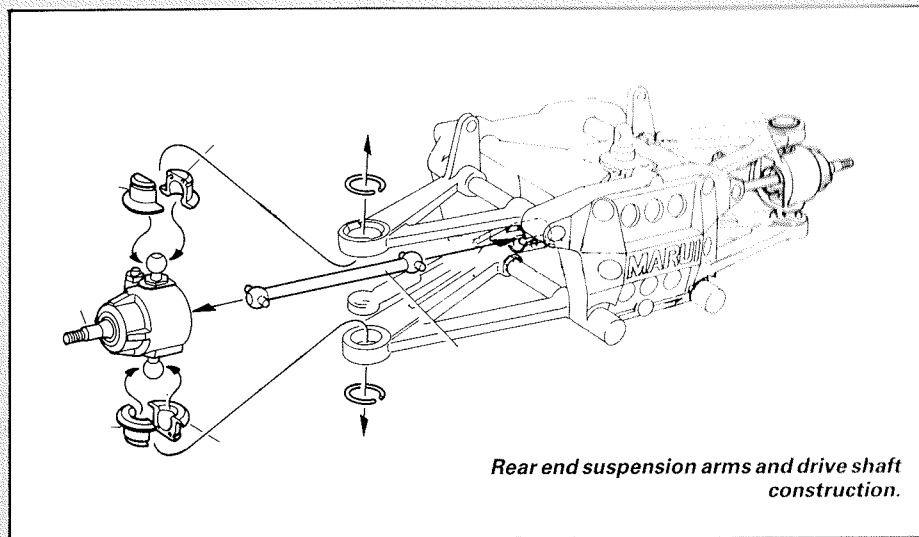
Next comes the front end, including the differential, ladder chain and steering servo. The differential is exactly the same as the rear, a three planetary gear type and should prove equally reliable. The steering servo is solidly bolted in and a plastic servo-saver is fitted along with the unequal length track rods. Around this assembly is fitted the long throw, double wishbone front suspension, the springing comes from torsion bars. The actual arms are made of durable nylon and the pivots are moulded on and seem very strong. This assembly is held in place by a strong plastic front section and three long bolts. The front suspension looks



excellent, and offers ground clearance and travel equal to similar 4WD cars. The up-rights are again nylon and look really good, they are held in place by two piece ball joints which are retained by a C-ring. The pillow balls are large diameter steel and screw through the plastic into captive 3mm nuts, improving reliability. The drive shafts are the usual ball and pin type.

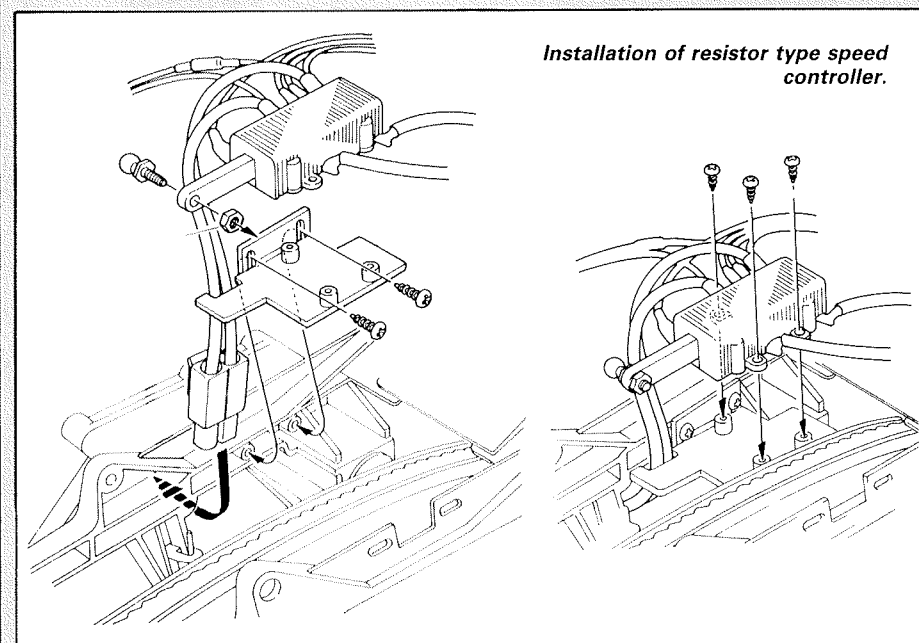
The main chassis halves are then fitted to the front end, they incorporate the torsion bar retainers and the chain runners. The top side of the chain run is protected by a channel support, but unfortunately the bottom part of the chain is unsupported and open to the ground. The gearbox is then bolted onto the back, revealing the compactness of the car and its quite short wheelbase. The chain is then connected up and the tension adjusted by sliding the front differential unit forward. The chunky rear suspension arms are now fitted, these are retained in plastic pivots and again offer high ground clearance and long travel. A nice wide front bumper and nylon side guards are then bolted on.

The next stage are the shockers, these are bleedable, good quality units. The oil supplied was used and seemed fine. The front monoshock is then fitted across the top wishbones producing an excellent front suspension with little bump steer and true Ackermann steering. The rear coil over shocks are adjusted and fitted, again giving good damping and long travel.



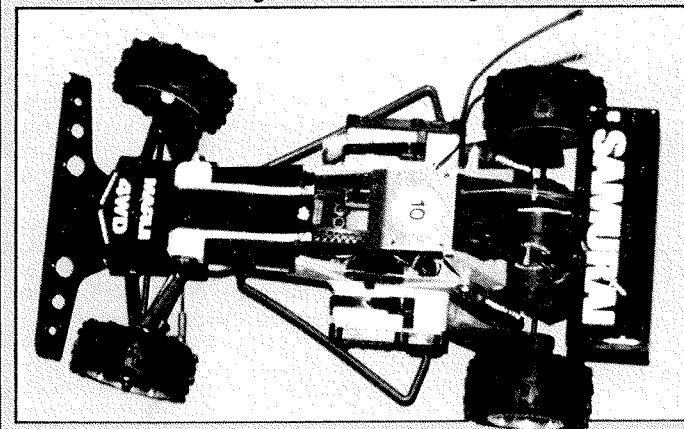
Rear end suspension arms and drive shaft construction.

The resistor type speed controller is now fitted within the space frame, this unit gives the usual three speeds, forward, quarter speed and reverse but unfortunately, no true braking. The design of this unit is unusual and very interesting. Instead of a conventional rotating wiper arm across a board, the unit is a sealed block with the arm moving in and out, down a tube. This method looks excellent as it is compact, reliable and means the motor wires are never pulled at. The servo is again bolted in and

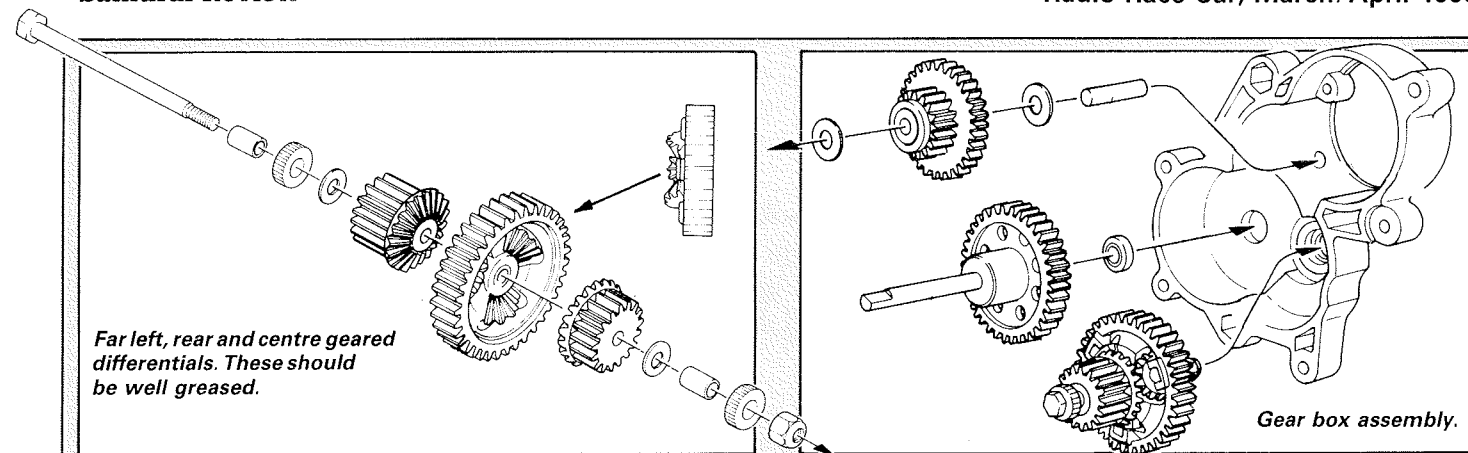
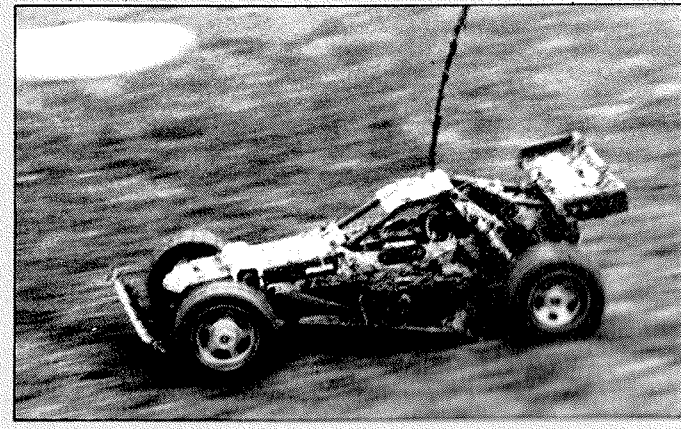


Installation of resistor type speed controller.

From above the Samurai reveals its fairly short wheelbase, well laid out chassis and large amount of steering lock available.

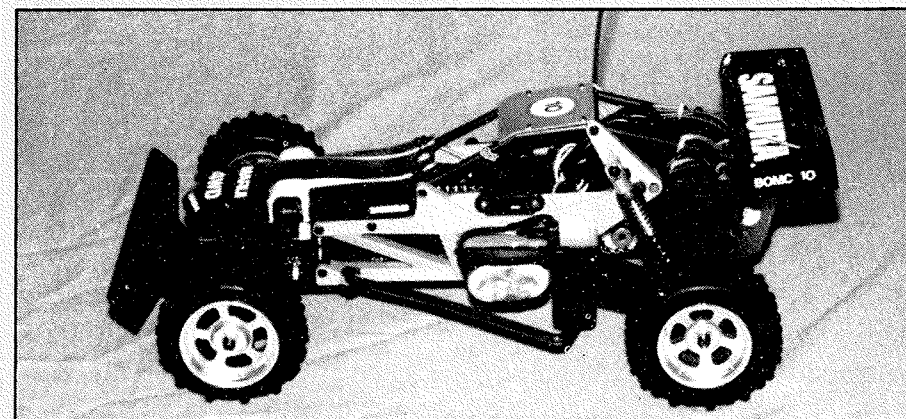


The open space frame does get very dirty in bad conditions.



Far left, rear and centre geared differentials. These should be well greased.

Gear box assembly.



The finished kit, revealing high ground clearance, damper positions and an attractive appearance.

the servos, mine were the largest that could possibly be installed. The speed control resistors are then fitted to a heat sink, and incorporated into the wing mount at the back. Great care must be taken to ensure that no wires rub on the exposed chain.

The red nylon roll case is now fitted and protects the receiver and speed controller. The driver could now be assembled, but due to the size of my receiver I could not fit him in. A small aluminium roof is supplied. The next stage is the wheels and tyres, the wheels are one piece nylon and are plated to give a chrome look. The tyres are square tread knobblies, but the blocks are carefully arranged to improve grip, and care must be taken to glue the tyres onto the wheels correctly. Once finished the wheels and tyres are extremely light and look the part!

All that's left to finish the car is to trim the nicad tie-wraps, fit the aerial and stick some glass tape (supplied) around your nicad pack to prevent the chain rubbing. The tiny lexan body and wing are now painted and fitted. The completed Samurai looks ready to Eat 'Em All out on the track, and weighs in at an amazing 1.5 kg.

Performance

The first run was with the low gear ratio fitted to the kit 540, and I was really impressed with the Samurai's acceleration and handling, but the top speed was not as good as I had hoped. So the high ratio was fitted, the top speed was greatly improved, but of course the acceleration was reduced. Another thing that struck me was how noisy the Samurai was, especially compared to its belt drive opponents. For a standard kit, the car handles really well — good lock, excellent turn-in and great predictability. The handling is helped by the three differentials, in my opinion the middle differential really makes a difference. If conditions are

slippery, this differential can be locked up to prevent wheelspin, but the tyres give such good grip this would not often be necessary. The suspension hardness can easily be adjusted, and must be set soft as the car is so light. The gear ratio can also be changed.

Race Report

With the car now finished, I was anxious to put it to the test, so on Sunday 26th January I took it to the local club meeting. The ground was frozen and rock hard, so the high gear ratio was fitted. I also changed the motor for a more competitive Demon 'Mr T', this improved the speed greatly. My first heat arrived and to my dismay the frozen earth had turned to mud — the nice clean space frame soon filled up, but the chain stayed clean. The car ran very well in

this heat, with excellent handling for such bad conditions, but without ballraces I realised it would be too slow for the 'A' final. For my second heat, I locked up the centre differential to give more grip, and qualified for the 'B' final. The final started well, but the car slowed to a halt within two minutes — the motor brushes had moved out of contact and lost me the race. I was quite impressed with the car's performance for a first meeting, the final result was 12th out of about 40. If the car was ballraced and the motor had been reliable, this would have been much better.

Conclusion

An excellent kit, it has great performance and handling, and appears to be very reliable. If ballraces were fitted then the Samurai could be a real winner. My only misgivings are that the car could be hard to maintain, as so many vital parts are very inaccessible, but as long as it keeps going and wins races, I can put up with that. Also, an underguard lower chain runner would have been nice — a job for the specialist parts manufacturer perhaps?

Printed on the tyres is 'For racing purposes only!' and I think this applies to the entire car, I hope to see many more Samurais leading the field at the local 'Bristol Off Road Model Club' track. All in all a really good car, and excellent value for money. Don't be put off by the name 'Marui', some other well known names I know could get a nasty surprise!

If you are considering a new competition car look carefully at the Marui Samurai 4WD. Price £100 approx. from Amerang stockists.

This was the car's first race — it had excellent handling and ride.

