

M.R.P. Pro 110**MRP's New Pro 110 Reviewed by John Varley.**

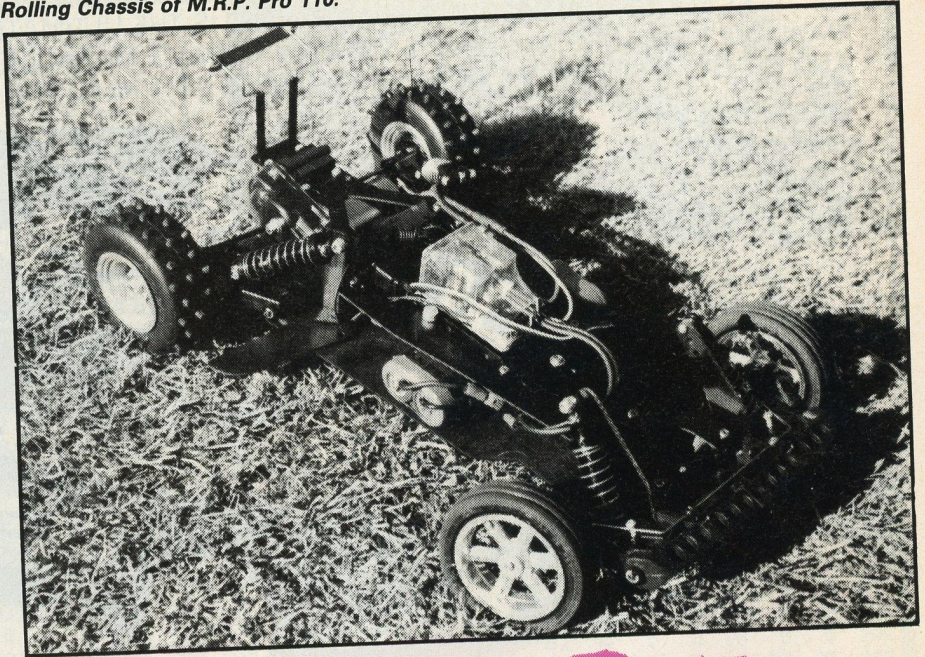
If regular readers wonder if MRP are another new name in model car manufacturers then they are clearly mistaken. MRP have been involved in the production of all scales of model cars for some years. Their home is in Woodville, USA, where they are well respected and have a strong following.

Thoughts of a breakthrough into the UK market and a search for an acceptable import agency have prompted them to promote their 2-wheel drive kit through the pages of our magazine.

The Pro 110 is billed as the all American car for all American tracks, and let's face it, they have got to get the equation right with cars such as the Associated RC10 to contend with.

This car is not the latest to come off their production line, with a new four wheel drive to be launched soon, but more of that one in a later issue.

The car has a straightforward basic design concept, with several innovative additions to help dial your car into different tracks and surfaces.

Rolling Chassis of M.R.P. Pro 110.

Born in the U.S.A.

M.R.P. PRO 110

Let us now go back to the start and look at how this car is offered to the public. The initial impact is very favourable, with the kit of parts being enclosed in a very professional looking silver lidded box, with an embossed relief of the car positioned in the middle. Nice enough to cut out and frame, and hang in your work room. All parts are sectionalised and enclosed in individual lexan boxes, again very useful to keep afterwards for retaining spares and nuts and bolts. A two-part instruction manual comes with the kit, comprehensive written instructions and a stage by stage pictorial

manual.

Front Suspension & Steering

The front suspension is designed with trailing arms, and mounted onto the one-piece high strength anodised alloy chassis. The trailing arms and their corresponding mounting brackets are made from high impact engineering grade Delron. The manufacturers have chosen Delron because of its strength and temperature insensitivity. It will not apparently lose its form in hot weather, or become brittle in cold weather.

The right and left swinging arm support,

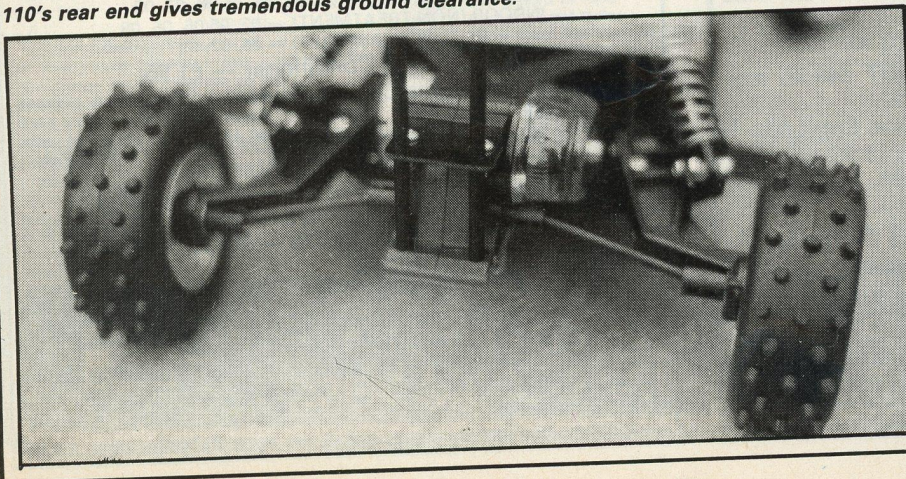
when bolted to the chassis, has a bumper moulded to the front edge. This may not be acceptable to UK rules and may necessitate a separate bumper being fitted.

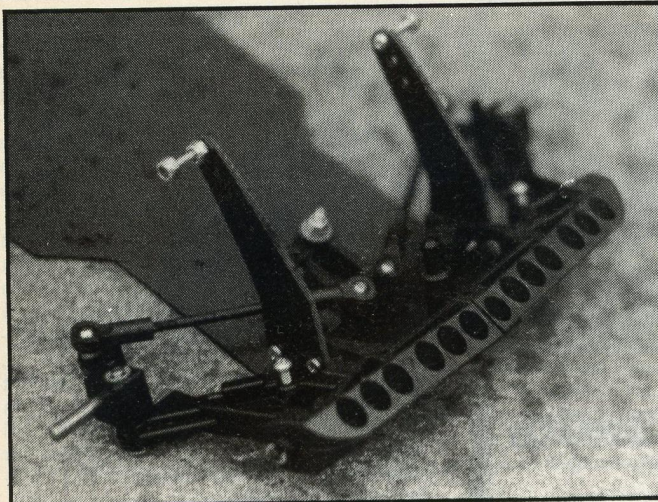
With a single swinging arm in position, the king pins are unsupported and the steering arms have a travel stop moulded onto them, and the arms are universal left to right.

Ride height is simply adjusted by means of a posidriv screw through the arm, locating onto the chassis, giving ample adjustments for varying track surfaces.

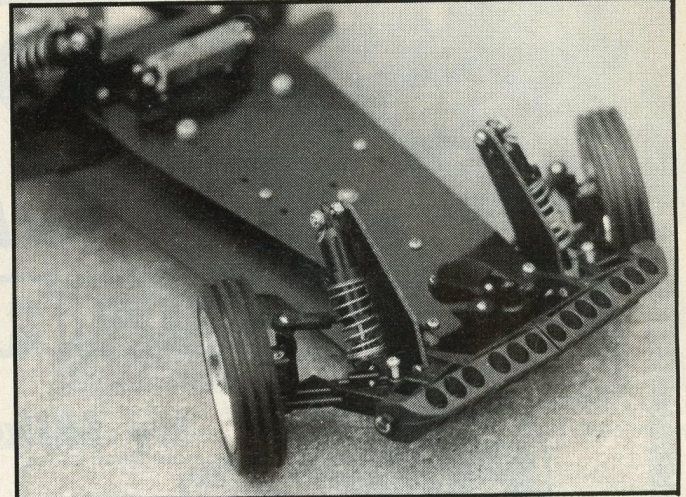
The pivot pin for the swinging arm, locates in a nylon eccentric bush in the outer edge of its support bracket. This eccentric can be rotated to give changes to the front suspension caster and camber, again, a necessary part of dialing in your car to the track or conditions prevailing on the day.

Damping is effected through coil spring over oil filled dampers. Experiment with different oils for varying damping effect, and also experiment with the varying rates of springs supplied with the kit. Front springing can be progressive, and offer smooth riding over small bumps and yet increase in rate, as the car takes larger obstacles requiring longer suspension travel. In effect the springing has an element of exponential, in the same way that high quality radio transmitters have for variations in the travel of steering and throttle mechanisms.

110's rear end gives tremendous ground clearance.



Front suspension showing trailing arm layout and direct mounting to chassis.



PRO 110's integrally mounted bumper, may not be acceptable to U.K. regulations.

Rear Suspension.

As with the front, single trailing arm suspension is used on the rear. The arm and its corresponding support bracket are produced from Delron. The arm is universal left to right and helps keep the cost of spares down by being designed in such a way. The eccentric pivot is also used at the rear in order to adjust the rear suspension for more or less camber.

Identically designed shocks are used on the rear, as those on the front, and you are offered on the suspension arm and its bracket, a three-point position for the shock absorber.

The rear axles run in ball races and have the traditional 'dogbone' half shaft for drive from the gear box.

Ride height is once more a simple affair by means of a single posidriv screw in each suspension arm.

Gearbox and Differential

The gearbox is a very compact design with straight cut gears on the differential and the transfer shaft, both of which run in ballraces. The differential is of limited slip type, and requires patience and care when assembling, especially the very tiny bearings used for the thrust race. Adjustment to the slip is via a 4-40une socket cup screw, clamped finally with a similar size of socket

set screw.

An anodised alloy motor plate is clamped to one side of the gear box housing, to take the motor and its gear train. At this point the builder has to decide upon a mid or rear mounted motor. We finally decided upon a mid mounted motor, to see how the car performed against our RC10 car which has a rear mounted motor design.

Final Assembly

The Kydex radio tray is clamped between the front and rear suspension support blocks, and comes with nylon moulded battery clamps and steering servo clamping blocks. If you don't have a controller to install, the kit comprises the traditional American resistor controller, and well worth trying, because of its simplicity, strength and reliability under all conditions.

All steering linkages, track rods and rear aerofoil assembly are supplied with the kit, along with lightweight chrome plated nylon hubs and ribbed front and spiked rear tyres.

All of your radio gear is well covered, with a full length lexan shield that incorporates a moulded driver figure and then a lexan bodyshell with its own decal sheet

that greatly enhances the finished car.

Conclusions

At approximately £120 including ball races, the kit appears to be good value for money, especially with the range of adjustments available, and a Mabuchi 540 motor thrown in. Yes, its only 2 wheel drive, but Associated owners already knew that this does not have to be a restriction. The gear-box gives a smooth drive, especially with the 48 pitch fine gears in the drive train.

The changes in motor position and alterations to caster and camber via the eccentrics, give you wide capabilities of dialing your car into varying surfaces.

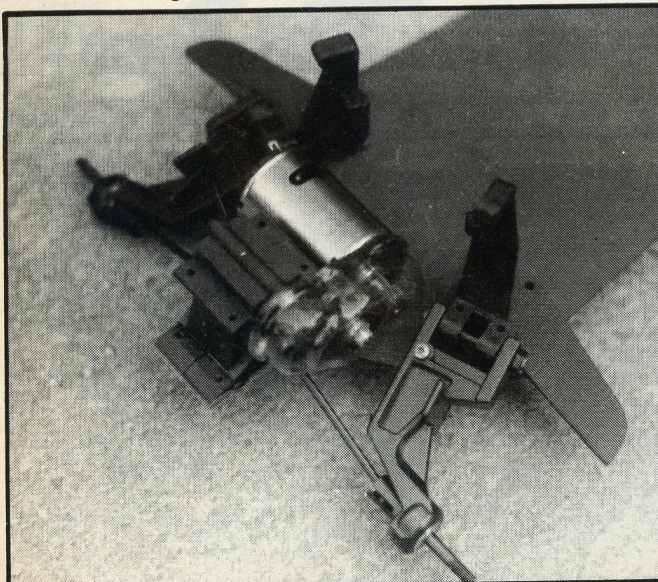
The range of springs supplied, greatly help when tracks vary in surfaces, and the difference between progressive and non-progressive rate springs can definitely be seen when in use.

Attention to detail by MRP helps sell this car, because of their neat lexan bodyshell and rear wing, and those very light but elegant chrome plated hubs.

All in all then, the MRP PRO-110 is a kit with some though behind it, and can be taken seriously as a potential winner, if assembled well and driven accordingly.

At the time of going to press we are told that the PRO 110 is available in the UK, so look for details in our trade adverts.

Delron rear trailing arm on eccentric pivot, adjustable for camber.



Dampers are identical front and rear. The rear shown have a choice of mounting position.

