

Mardave MK II 1/8th Stockcar



MARDAVE WERE THE FIRST in the field with scale model r/c stockcars and over the years have maintained that position both on price and quality. For a long time building and running stock cars in 1/8th scale seemed to be the special activity of a Leicester-based group of enthusiasts, spreading out a little to embrace Coventry and then northwards to Yorkshire. But in recent years a much more formidable expansion has been taking place with a strong group in the south covering Chessington and the coastal strip of Sussex.

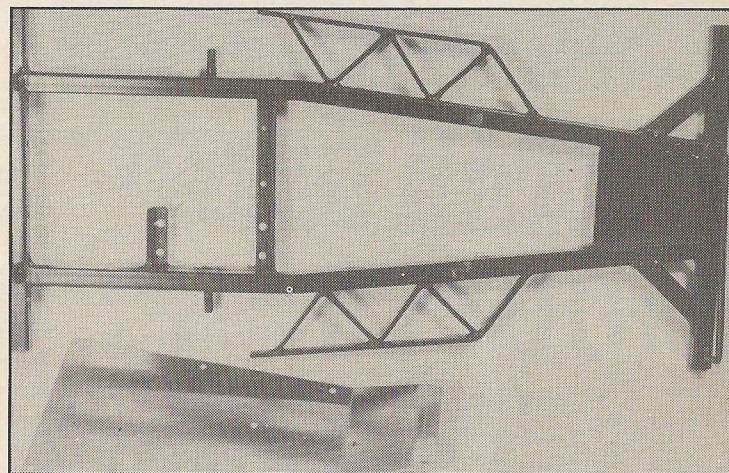
The reason is really quite simple. R/c stockcar racing is a much more relaxed version of i.c. racing with a fairly rigid formula covering cost and design so that drivers can come to a meeting confident that no one is going to have a car that is mechanically very different from their own, apart from any special skills an opponent may have in finishing a basically identical machine. It will all depend on the drivers' skill in handling as to who proves the winner . . . plus that little demon bit of luck that everyone needs.

In spite of this cost/design formula it is amazing the differences in body design paint jobs and the like which tend to make a stox meeting a riot of colour. Another important factor in attracting adherents today is the far more modest investment necessary to get on level terms with the club experts, plus the thought that there is no "rat race" to keep abreast with new developments. More and more club drivers from i.c. racing circles are finding in stock car racing a welcome change from their usual activities.

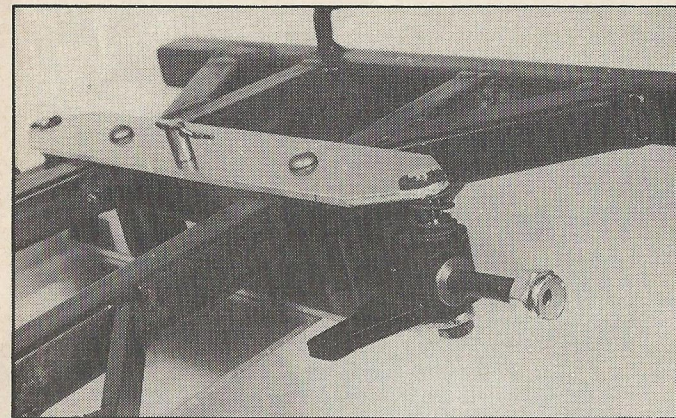
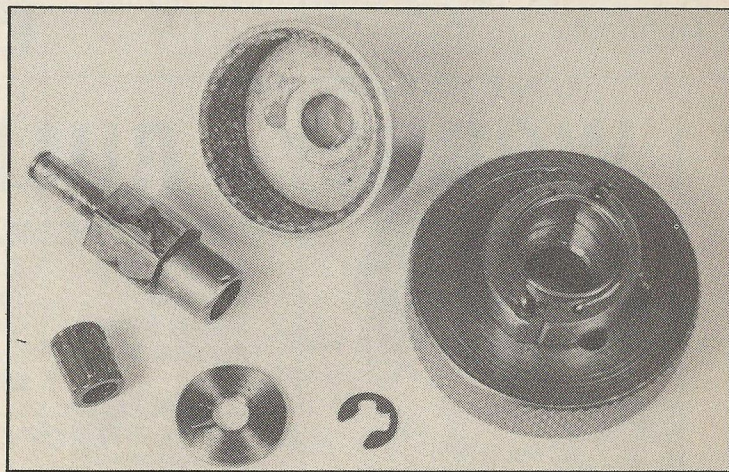
"Don't kid yourself it is all that easy!" one such convert said recently, "There's a lot more to it than just going

▲ Finished car, painted up in two colours — white top of course — and with racing number in place on roof and name on bonnet.

▶ The much improved welded chassis now with nerf bars and bumpers integrated and undershield.

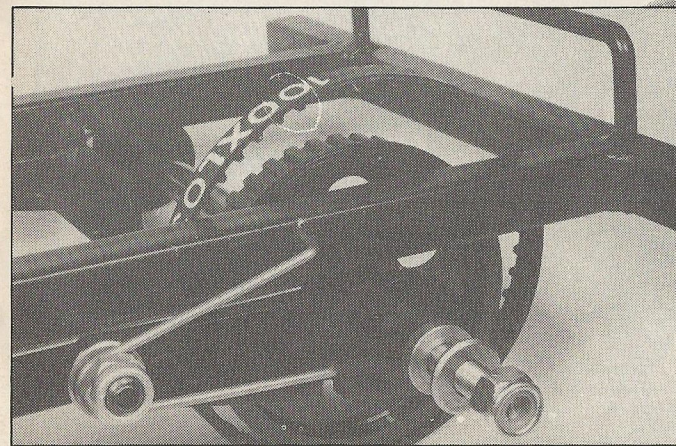


▶ As good clutch/bellhousing set up as you will find. Note needle bearings in their cage and strong metal sprung shoes. Bellhousing is already lined.

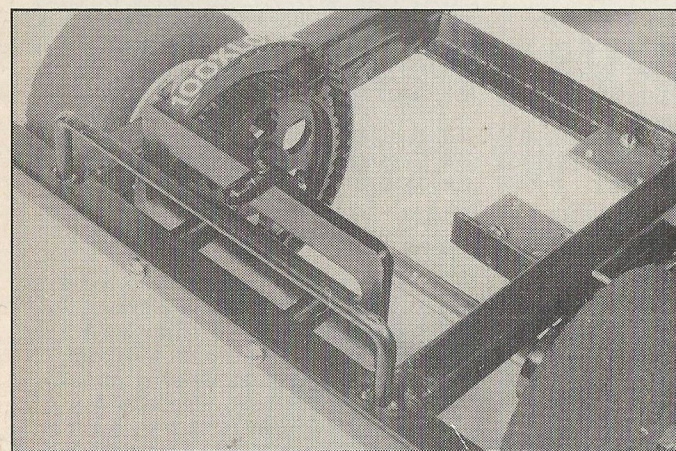


▶ Large toothed wheel secured to axle by bolt and nut through axle and flange. (used to be tapered pin).

◀ Sprung stub axles and plastic moulded steering arms — a far cry from the original design.



◀ Axle in place with belt looped in and rear springing fixed.



◀ Rear with fuel tank bracket which also provides button to locate and attach body. Engine plate in place.

round an oval track more times than the next man. In the smaller area there seem to be a lot more cars to pass and re-pass and the art is finding the right line, as well as the unfriendly nudge that puts someone else off his . . .

That's what it is all about. I include a copy of the construction rules, the affiliated clubs, and racing procedure. All racing takes place on an oval circuit in an anticlockwise direction, and offers more opportunities of racing as heats progress through after initial runs to eighth, quarter, semi and final events. You can tell the quality of the opposition by the colour of their car roofs, beginners starting with white roofs, then after some success promoting to yellow, to blue to red . . .

with all the satisfaction of a humble white roof showing his heels to a proud red top . . .

Now to work on the Mardave Mk II. This is a refinement of the original design dating from 1973 and offers a robust workmanlike job likely to stand up to a lot of running and the bumps and hazards of a keen competition. Chassis is already welded up and now has overriders and nerf bars ready welded in place. Do not try to be clever in rubbing down the welds you may only succeed in weakening the structure. It comes primer painted and can be left like that until you come to the general painting job, or you may wish to give it a squirt or two from an aerosol whilst still uncluttered.

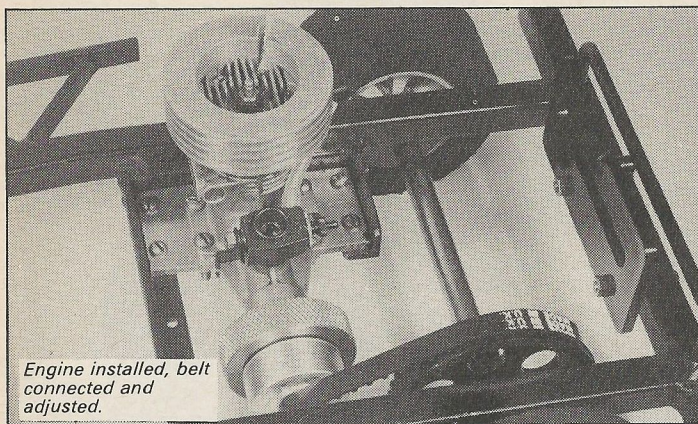
radio control

A protective undershield is fitted next using the threaded stand-off blocks already welded in place. A couple of 3/32in holes must be drilled through the front bar to secure this shield at the forward end with ST screws. Steering crossbeams in two pieces go above and below the chassis frame, but first screw in the little body fixing post that goes into the central hole in what must be the upper beam, with the post towards the rear. A look at the bodyshell will convince you that this low location is right, since body has a small forward lip. Bolts go right through with nuts underneath, overlengths of which should be sawn off. A little Loctite at this stage is not out of place.

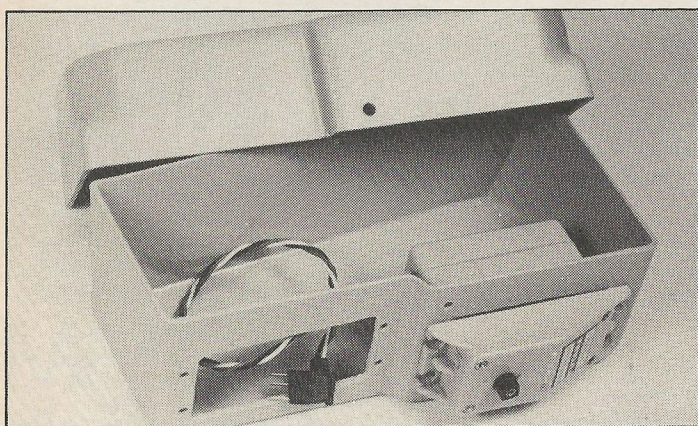
Elegant plastic steering arms/stub axles in steel complete are inserted between the steering cross beams. Little springs clip onto the mouldings and the kingposts, which contrary to the instruction text have circlips on top and go in only way to be nipped at the bottom, again with a little Loctite I would advise.

This neat assembly can be followed by the insertion of the servosaver, already made up. Its holding bolt goes through a ready drilled hole in the undershield which is bolted in place and the servosaver dropped on to it. Sixteen gauge piano wire in two 8cm lengths are cut (not provided) with ends bent up for the last 5mm at right angles each end and are attached to steering arms and bellcrank with the plastic swing keepers (which are provided). A slight amount of toe-in can be induced by kinking the steering arm wires. Put the wheels on to judge the amount of toe-in you are getting. About 5° should do the trick.

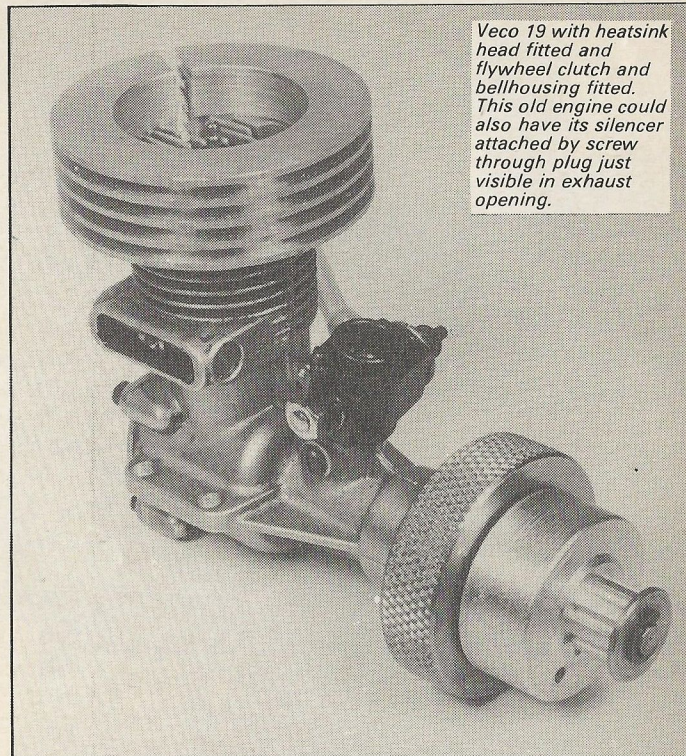
The big plastic toothed wheel is next fitted to the axle, and secured with the nut and bolt that goes right through the boss and axle. Boss should face inwards so that flat side of wheel is towards the chassis. Rear suspension left hand radius arm goes on to threaded stud with the spring going one prong in ready drilled hole in chassis and other in lower hole in radius arm. Spring goes over stud, with washer nearer to chassis and then the unit secured with the large nut provided,



Engine installed, belt connected and adjusted.



Radio crate with servo opening cut and one servo inserted.



Veco 19 with heatsink head fitted and flywheel clutch and bellhousing fitted. This old engine could also have its silencer attached by screw through plug just visible in exhaust opening.

screwing down just enough to allow a springing movement. Slip the belt over the wheel, fit right hand radius rod as for left hand and slide axle in place. Rear end should now have a working sprung suspension unit. Put on rear wheels, with washers (larger one on the inside) to each wheel and screw nylon nuts down. We now have the makings of a rolling chassis.

Engine plates should now be tried for fit and engine to be used checked to see that the ready tapped holes coincide with those on the engine lugs. My trusty old (old is the operative word) Veco 19 did not match up so rather than spoil a useful pair of plates for some other engine I made up another pair from alloy sheet and drilled holes to suit, but not threading them, attaching instead with bolts and nylon nuts. My Veco had already been cut back a few threads to fit elsewhere so was quite ready to be installed once flywheel and bellhousing had been affixed. This is really quite a remarkable set up when price of the kit is considered: needle bearings, ready assembled clutch shoes with springs to last as long as the car, lined housing, crankshaft adapter and neat secure fixture of bellhousing with a washer and circlip. Do not forget to slip the belt over the spur gear when assembling. Test for belt tension is to hold clutch drum firm and try to turn rear wheels. If too loose will jump over wheel teeth, if too tight the reluctance to move is fairly obvious. Some limited engine movement is possible by ovaling the engine plate holes.

Permitted cost of engine is now £43 being retail price as at 1st January 1981 not including price of heatsink and silencer. I have used the rather attractive and inexpensive broad finned Mardave type. It sometimes presents a trouble how to get it on and how far to push it. Easy! Slip engine in vice with soft clams in place; place heatsink above it and with a block of wood protecting it tap it squarely into place with a hammer, easing out the slot with a broad screwdriver if need be. Drift it down about three fins — you may be able to detect a slight half way mark on the inside and there you are. By the way in cutting out your bodyshell do not leave plastic too close to heatsink, but cut it away a little as neatly as possible.

There is only just room for a small dustbin type silencer. My old Veco has a little bar through the exhaust opening which has a threaded hole to enable silencer to be secured with a bolt. Later models omit this bar and silencer must be fixed with a wrapround wire and tensioning bolts. These silencers come with exit tube in two places — it should point downwards for stockcar (straight out for racing car). If you have the other sort then you can get out of it by a short length of silicon tubing turned downwards. Some Hermatite or other sealant makes a gas tight joint.

At this stage I left the chassis alone and had a little relaxation cutting out bodyshell and radio crate. I have usually drilled round the openings clearly marked on the body with a chinagraph pencil to choice and then

cut through between the holes. But just for a change I did it the other way this time using a hot soldering iron to melt out the openings. You will also need to cut away a piece adjoining rear window to allow the spout of the fuel tank to emerge and be serviced. At the front two little nicks each side to clear the crossbeam holding down bolts enables the body to set flat and engage with the body bolt. Do not have the iron too

the garage or somewhere where the rather unpleasant smell will not provoke family dissent! Afterwards apertures are finished with a model knife and a little glasspaper wrapped round a file or similar. On balance I think the smelly way is slightly quicker, close to the finished lines, and do it in

Radio crate is something which Mardave introduced right at the beginning and with small changes here it is still today. It provides a neat way of housing the radio components, keeping them nearly 100per cent dry and absolutely clean. Moral: don't improve on a really good thing! Holes must be cut in the side of the base to receive whatever servos you are using. I use my trusty Futaba 17Ms for this scale, keeping the tiddlers for 1/12th electric use, but cut your holes to suit your needs. Crate is bolted to the undershield tight against the right hand side leaving space for the servos to operate on the left. It overlaps the end of the shield but not enough to get in the way of the silencer box. Two holes must be drilled in shield using holes

bored in crate where popped as a template.

Only a few little items remain to finish the working part of the car. Fuel tank fits on the clever little plastic plate with its slot to take the extrusion on the tank, securing with a couple of stout elastic bands. Note the little button on the back. This slots into the hole popped at back of the bodyshell. With the single bodypost at the front it is all firmly fixed. A great improvement on the original fixing which involved Velcro and spring hooks.

The radio crate provides room for the two servos, battery and Rx. Aerial can conveniently be threaded into the top of the crate. Cars are never so far away on a stox circuit that range is very important, and thus tucked away it provides no stand-up aerial to be caught behind someone's nerf bar or whatever.

Simple fuel tank connects up in a short length to the engine — don't forget to slip a fuel filter in the middle: surprising how much impurity can get through however clean you think it is. An air filter again is even more essential

Finished car waiting for its bodyshell. Rx aerial looped on crate top. Note fuel filter in fuel lead and sponge type air filter (Delta an old favourite of mine).

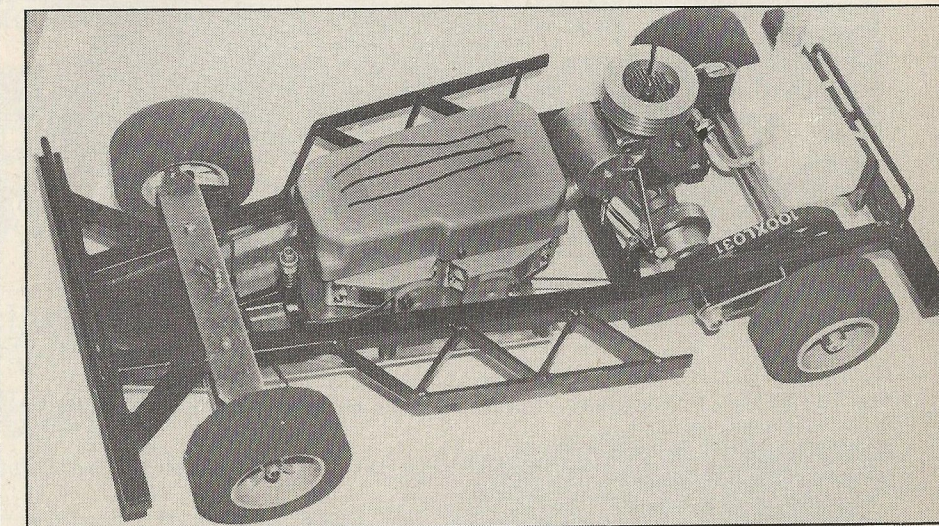
to take care of muck trying to get in the engine via the carb. Unlike aircraft flying in clean upper air cars are groundlings with mud and dirt everywhere.

I painted my greyish ABS bodyshell white all over as a start. The white rooftop and cabin sides were masked and a second colour applied — red in this case to make a red/white/blue car as I had already sprayed the wheels in blue. Your name must go on the car and your racing number as allocated by RSA — a number you can keep for your

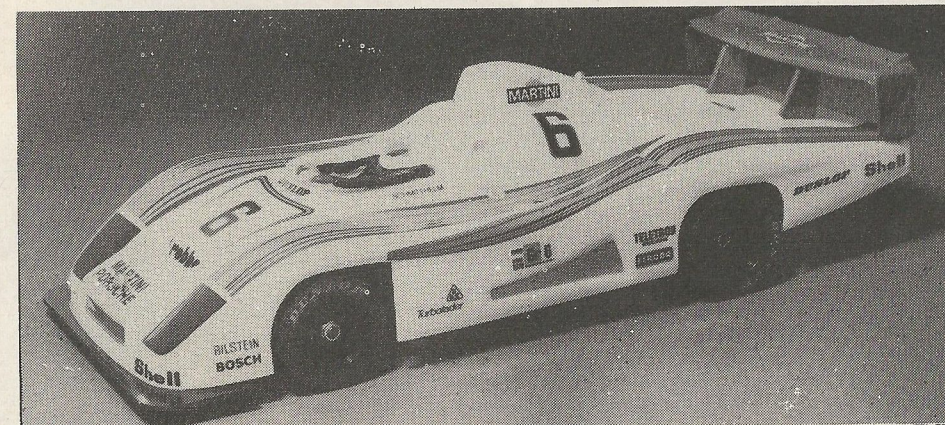
radio control

racing life. The number goes on a little panel fitted on the roof, being black numbers on a white ground, and painted on each side of the numberplate.

That really finishes this description. There remains only to suggest you read up the rules and seek out your nearest club, not forgetting to send off a modest £2.00 for RSCA membership to the treasurer and begin a relaxing form of r/c model car sport . . . I think you'll have fun.



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