DINGO 2WD

Andy Brasted drives a new Rallycross Racer

For a long time now there has been a big hole in the market for 1/8th rallycross cars. At the pure beginner end, there is the *Mardave* 'Marauder' which has been going a long time and is still a good value-for-money car. From there you have had to jump to £300 plus for a car and upwards of £80 for an engine. But now, that gap has been filled by *Mantua Models*. *Mantua* have been building and selling models for several years now and this is one of their latest. Richard Stitson of *Windsor Models*, well known for his experience in 1/8th rallycross circles, has decided to import the 1/8th rallycross 'Dingo'. This is a fully blown competition machine but at a very realistic price. Along with the first batch of kits Windsor Models also have a **full** spares back up.

Dingo Mechanics

The 'Dingo's' construction follows familiar lines to most modern kits so I won't bore you with all the details. What I will do however is cover the construction in brief and detail any oddities that I came across.

The kit comes in a largish box which is covered in numerous colour pictures of the car. Inside the box the large components are loose but all the smaller items are supplied on cardboard backing under clear plastic. The very small items like screws and e-clips are in numbered bags each number corresponding to the stage of building for which they are required. The box also contains a good manual. This is written in Italian, English, French and German. The English translation is easy to understand but does contain the odd strange spelling and poor grammar! Each page in the manual has a number which corresponds to the numbers on the screw bags. All the large items for each stage are also listed. Along with this there is a short text description and some photographs. All of these combined to make the building very straight forward.

Build-up time

So, on to the building. As with any kit it is wise to familiarise yourself with the manual and parts first.

Construction begins with the rear gearbox. This is the same as the front except that for in this 2WD version the front gearbox is obviously empty. The differential is pre-built and is fitted with its driving gear into the two halves of gearbox by the fitting of four ballraces. The whole unit is filled with grease (preferably one with molybdenum in it). The two halves then bolt together and screw to the chassis. Before screwing down, the edges of the chassis should have the burrs removed carefully with a file. After this the propshaft and main gear/disc-brake is attached. This is the first item that needed attention. The brake surface is already attached to the main gear. This is acted upon by three metal brake pads. One acts as a spacer and the other two as actual pads. All three plates had a relatively substantial burr on the edges where they have been punched out. This must be removed with a file prior to assembly to prevent the brake from binding. If, after this you find that the brake still binds replace the spacer plate with two slightly thinner washers. There is also a plastic plate that is attached to the underside of the chassis in front of the main gear to protect it.

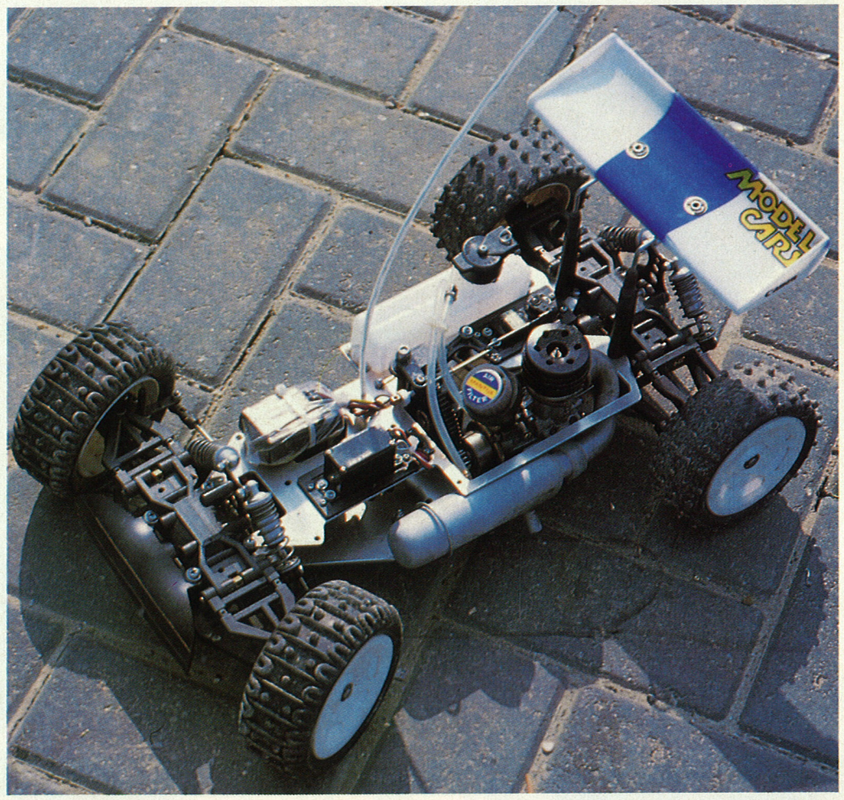
Next assemble the servo saver and fit directly to the chassis. This is a fairly

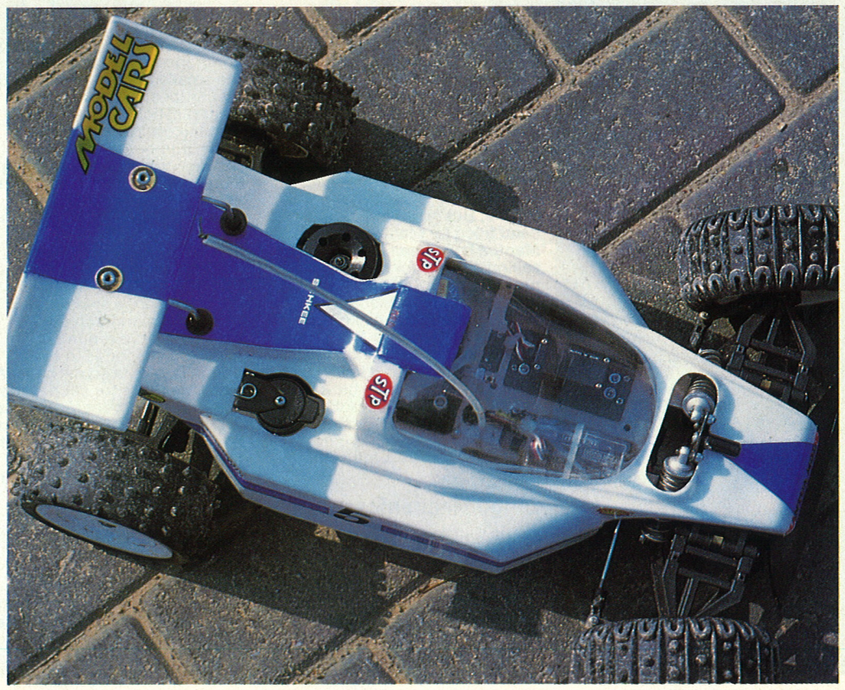
substantial unit and gave no problems in use. Front gearbox halves are screwed together and attached. This allows all the wishbones to now be attached by pins held in place by e-clips. All the upper wishbones have knuckle joints fitted so that it is very easy to adjust the camber on any wheel. In the standard kit plain bearings are supplied for all the stub axles. These are tapped or squeezed into their housings. They are attached at the rear by pins and e-clips again. (Don't forget to first slot in the drive shafts). The front axle blocks have large balls screwed to them, top and bottom, which are pushed into the wishbones. These are a very good fit so will not pop off. If they do work loose through use there is a screw through the wishbone to allow you to tighten the joint. I found this unnecessary to start with as I needed to use a vice just to get the balls into the wishbones! Metal steering arms bolt to the axle blocks along with steering stops. When tightening these up hold the stub axle straight and push the steering arm towards the chassis. This is necessary to prevent the front tyres from rubbing.

The front bumper is screwed to the chassis and bent in an arc to also attach at the top of the gearbox housing. It is a strong bumper but I would have liked it to have been slightly wider.

Shock absorbers are fitted together in the standard way. The units supplied have a metal body with good seals. I have not experienced any leakage at all. The shocks were filled with *Windsor Models* silicon-based 200 grade damper oil. This is a good starting grade to use. This oil is recommended as it does not tend to change viscosity as it warms up in use like certain other damper oils on the market.

Next, fit the upper chassis plate after de-burring along with the radio and body mounts. Tyres are then glued with cyano to wheels and fitted. The long fuel tank is put together as shown. The inner 'fuel catcher' is a little fiddley but far from impossible. This is held into the tank with a self-tapping screw as is the lid. The instructions say to seal these with epoxy resin. I have found in the past that fuel attacks some epoxy resins so I used bath sealant. This appears to work well as I have not had any leaks. The flip top to the tank is worth a mention as it also works well. It is held shut by a spring and an adjustable O-ring seal so as the O-ring wears it can be tightened. That completes the basic rolling chassis.





The new Dingo in 2WD form offers a 'mid' point in cost for Rallycross.

Power Supply

Engine. I was supplied with the standard *Mantua* engine. I believe that these engines start life as *Pico* engines and are reworked by *Mantua* to give even more power. Having used the standard *Mantua* engine I would recommend it to anyone to go with this kit anyway. The flywheel is attached to the crankshaft by a nut and is a thin brass type. Metal clutch shoes and their springs are fitted to roll pins on the flywheel.

As an extra there are three other types of clutch shoe available, i.e. Teflon, carbon and ergal-carbon. Pay close attention here to the diagrams to get everything correct or the clutch will not operate as it should.

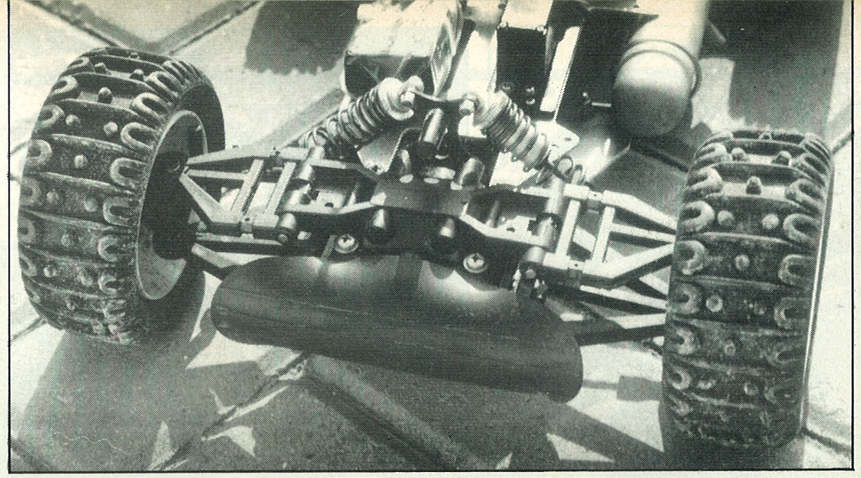
A plastic caged needle roller bearing then fits over the crankshaft followed by the clutch housing/drive gear. This is held onto the crankshaft by a circlip. The engine can then be bolted in as shown after making sure that the engine mounts are square and have no burrs. This is also detailed in the manual. It is found to be necessary to slightly reshape the bolt holes in the chassis so as to get a good gear mesh. If this is not done you will have problems getting the clutch housing to not rub the drive gear and give a correct mesh at the same time. The exhaust is held to the engine by a spring around the engine body. It is supported at the front by a wire loop which bolts to the chassis.

Electric Pits!

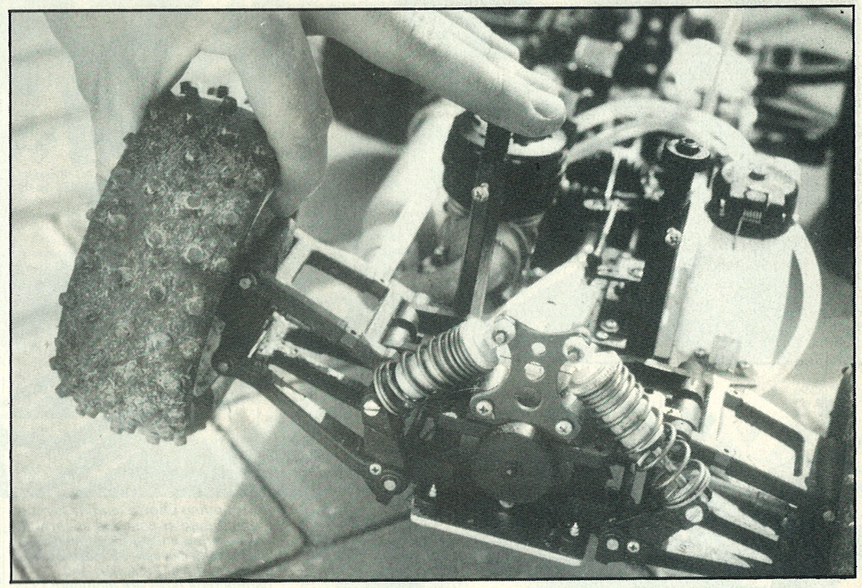
Radio installation is shown in quite good detail as it is not all that easy. If, however, the instructions are followed, especially with regard to the throttle/brake linkage then everything will be OK. If you use a square battery pack for the receiver as I did, you may need to shuffle this and the receiver around as the position shown next to the exhaust is not very big. There is provision if necessary to allow the fitting of two steering servos however I did not find that I needed this for the 2WD version. If you find the steering a little tight at first then the outer nylon rings around the balls can be carefully squeezed in a vice and released. This helps to relieve the steering joints.

The body is sprayed on the inside of the lexan as normal and cut out. It is held on by hooking the front over a pin and screwing down two plastic nuts at the rear. A wing is also supplied. This attached to a wire frame which is just pushed into the two rear body supports. The engine is started with the body and wing already in place.

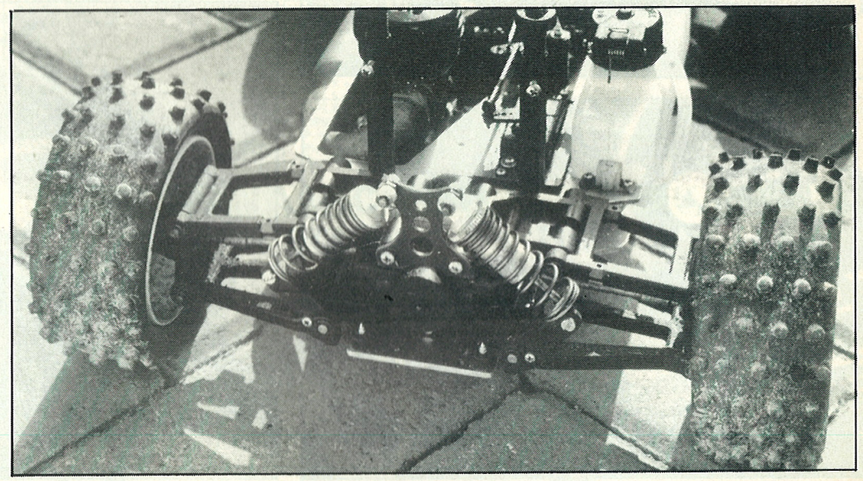
Running. The engine started

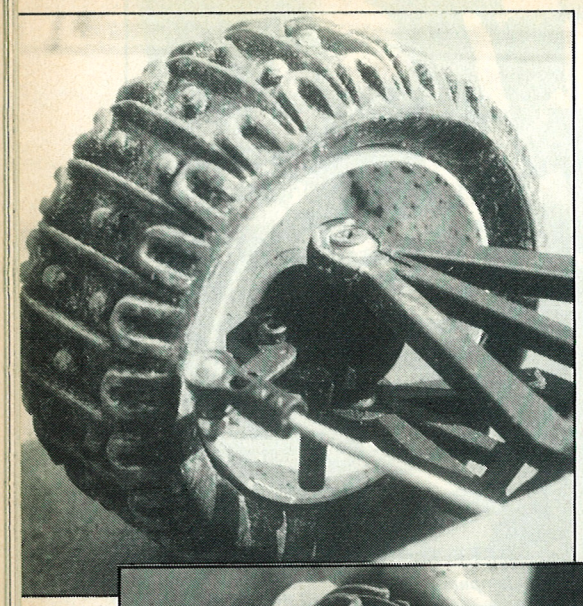


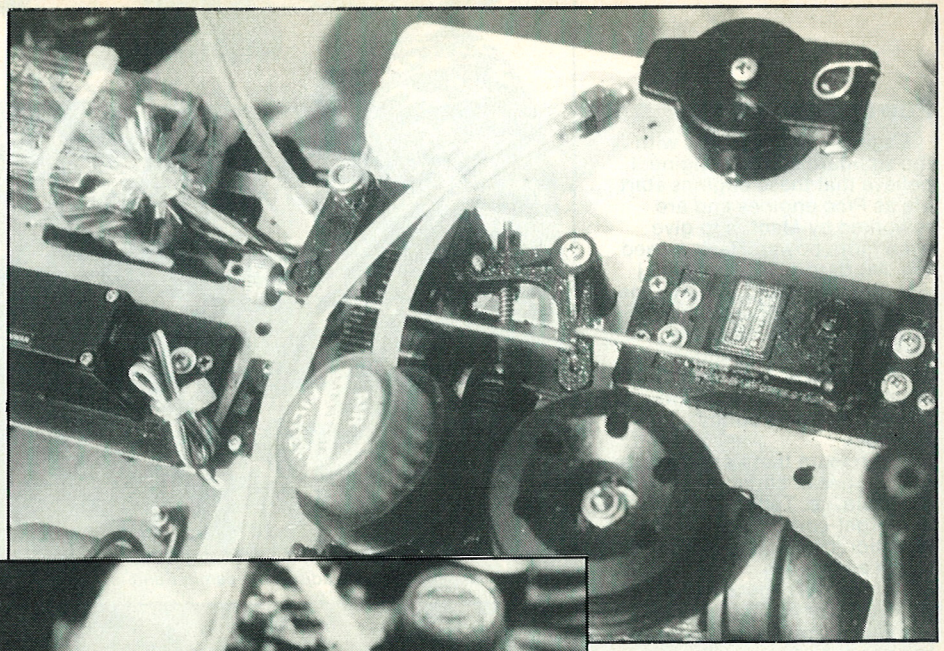
The front suspension gives adjustable camber and is damped by oil filled dampers.

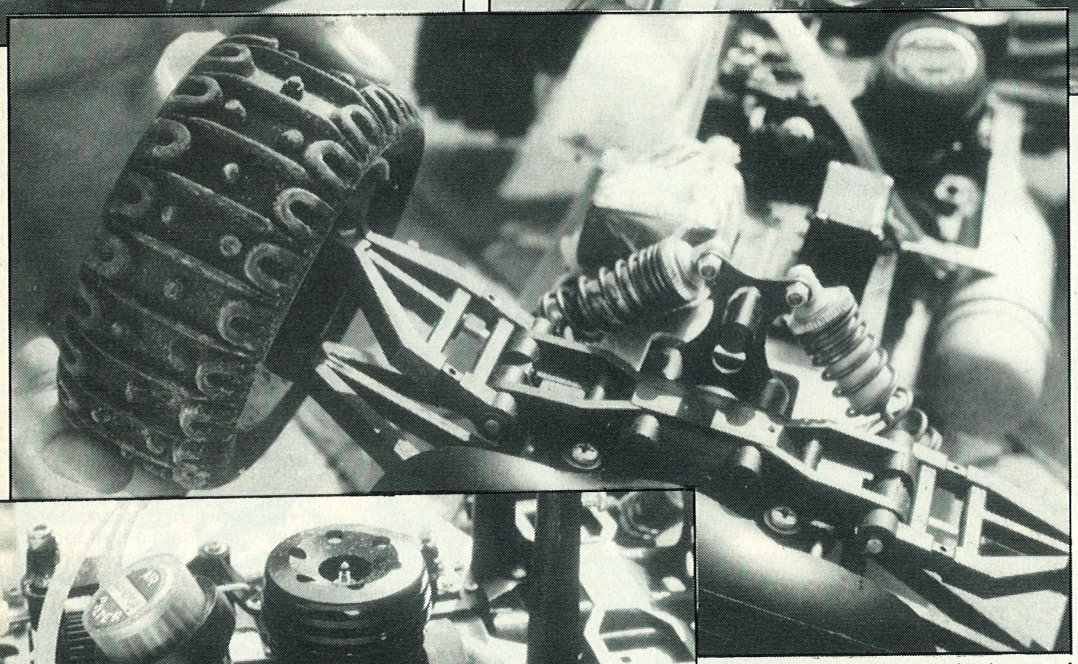


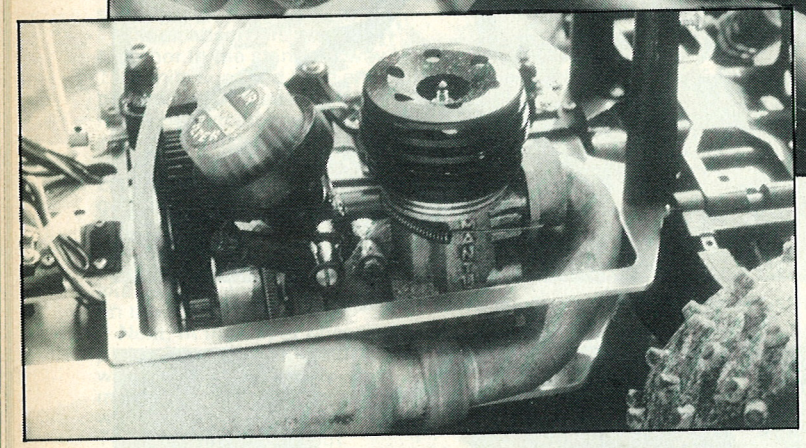
Above: rear suspension has plenty of smooth movement. Below: the spring rates on the dampers is adjusted via threaded rings.

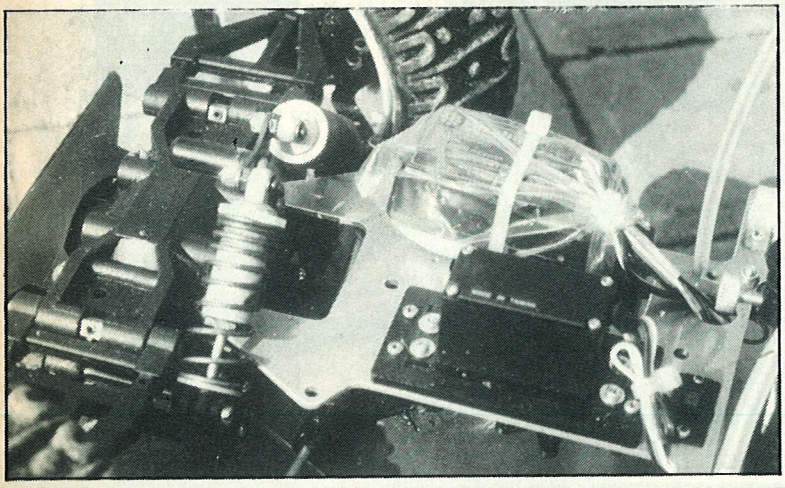


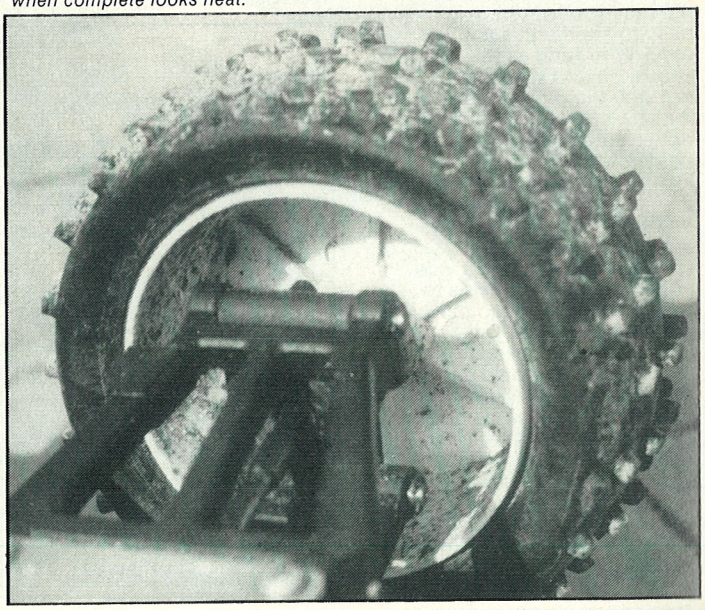












Surrounding photos: engine layout in the 'Dingo' is neat and all throttle and steering links are supplied. Clever 'pin' driveshafts stop the risk of losing drive. Pinspikes and paddle type tyres are included. Radio installation is simple and when complete looks neat.

from new easily. The settings of the carburettor from the factory were just right. Once warm the car performed superbly. Suspension was good, tyre traction etc was excellent and the power from the engine was plenty. To be honest I could not fault it.

Conclusions. The above running report really says it all. Value for money this car will rule the tracks for a long, long time. Its price will introduce a lot of newcomers to 1/8th rallycross which has got to be a good thing. The car itself I believe will be competitive at both club and national level. If you are looking for a car to start this exciting hobby or want to move up from the good old 'Marauder' then this is the car for you.

Dingo kit 2WD 1 diff – £124.95
Dingo kit 4WD 1 diff + engine, pipe manifold and air filter – £224.95
Dingo 4WD Conversion inc. front diff – £75.00
Dingo centre diff conversion £49.95.

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