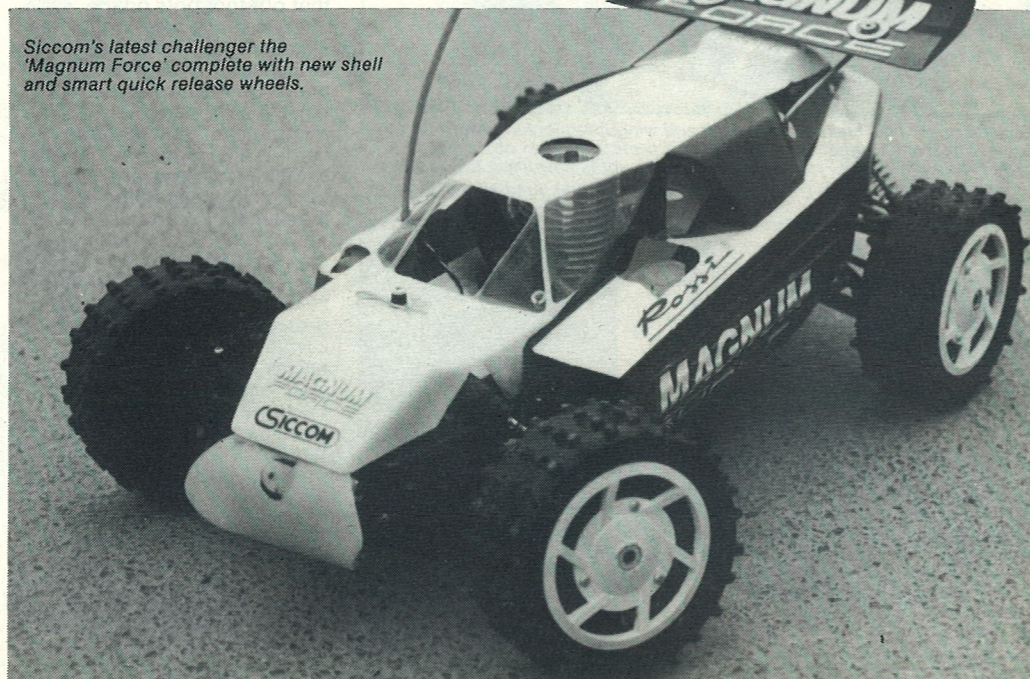


# Rallycross RACING

Siccom's latest challenger the 'Magnum Force' complete with new shell and smart quick release wheels.



**John Chamberlain and the Model Cars team have been to Paris to reveal the latest Rallycross car from Siccom**

This month begins the most important part of any serious Rallycross racer's year. It is the time to exhume the car from the depths of the model room and to start to consider the plan of action to restore last season's worn out wreck to the finely-honed thoroughbred that will be ready and able to take out to the winner's rostrum in 1988. There will of course be those amongst us whom, having followed the Rallycross scene during 1987 have decided to change their old, faithful mount for a new car, perhaps from a different manufacturer or to just update their current one for a new model from the same stable. With this very point in mind, Model Cars dragged themselves away from their favourite wintering grounds in Hemel Hempstead and headed for the Channel ports and thence to Calais and the Autoroute to Evry, a suburb to the south of Paris. The reason for their trip was in the selfless desire to bring you, our readers, the exclusive review of the avant garde 'Magnum Force' rallycross car from Siccom! Siccom began testing the earliest prototypes of

the 'Magnum Force' as long ago as November 1986, very soon after the highly successful 'Magnum 4x4' was launched onto the market. As with all progressive manufacturers, Siccom continually test new-concept chassis designs and evaluate their performance where it really counts - on the race racks. Despite the fact that the 'Magnum 4x4' had won almost every international race meeting during 1987, Siccom were aware of the limitations of the chassis and in particular the difficulties in tuning the rear suspension springs and dampers to suit exactly the varying frequency and amplitude of bumps at different circuits. Further testing of the 'Magnum Force' prototype and ongoing race experience with the 4x4 during 1987 proved conclusively to Siccom that by as simple an expedient as moving the mass and thus the centre of gravity of the chassis substantially further forward than is the norm on any other competition chassis in its class, the way that the rear suspension absorbed all types of bumps was dramatically

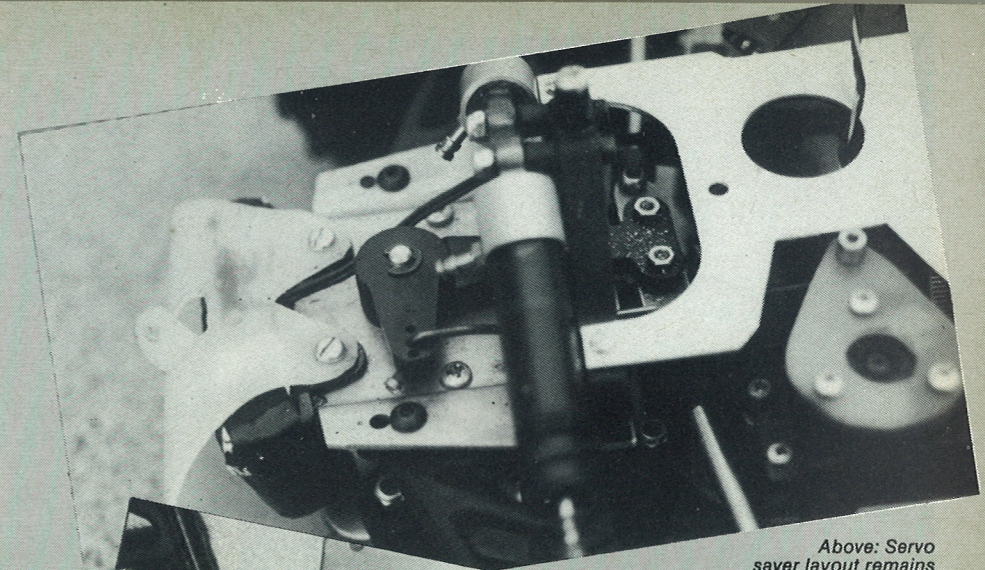
improved. A further major benefit is that the setting of the rear springs and dampers is far less critical for optimum performance.

In an attempt to impart some of these known benefits to the handling of the 'Magnum 4x4' during 1987, the 'works' cars were run with as much of the moveable weight of the chassis, such as receivers and battery packs, located as far forward as possible, and the rear of the chassis and associated components lightened as much as practicable. With the arrival of the new 'Magnum Force' on the market place, the definitive solution to the problem is available for the 1988 season and once again bucks the trend of chassis design and layout of its contemporaries.

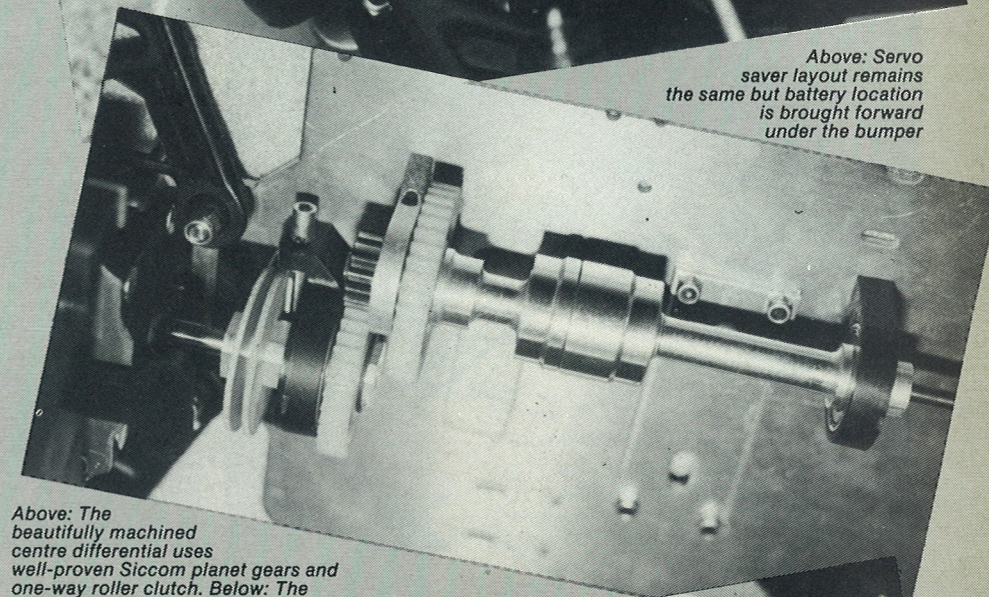
The 1988 'Magnum Force', designed as was its predecessor by Alain Lyon, shares the same front and rear gearboxes and suspension geometry but mounted on a completely new high tensile chassis plate. The major difference, and we believe unique to this car, is that the motor is mounted at the front of the chassis, in the centre, with the crankshaft facing forwards, driving onto a new centre differential assembly designed to operate with the motor in its new position. The new car has been specifically designed initially to use the Rossi motor, which should come as no surprise as Siccom are the French distributors, and Rossi are to manufacture the custom designed tuned pipe exhaust and manifold that is positioned very neatly in a transverse position, behind the motor. We have already brought the first production kits back to England, along with a prototype manifold and pipe and can confirm that an OPS 21 rear exhaust motor will still fit in with no problems, and the design of the pipe itself would appear to be entirely suitable for good performance. We shall of course be putting this to the test as soon as possible!

With the motor fitted in its new position, a new top plate is provided to join the front and rear gearboxes together, and to accommodate the repositioned servos and receiver. To complete the quest for frontal weight distribution, even the NiCad power pack is recommended to be fitted within the front bumper assembly. The suspension assemblies and geometry are unchanged from the 1987 model, although new lighter springs are included in the kit to suit the new weight distribution. Ongoing development has seen a change to improved material specification for the drive cups to reduce wear and improved plastic drive gears now moulded with a radius between the teeth to improve their shear strength.

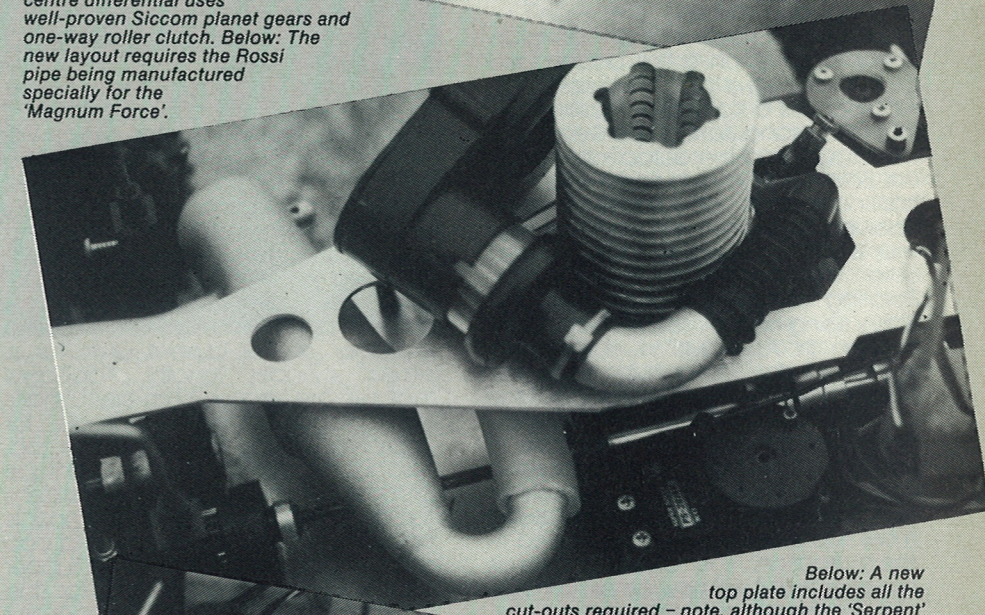
Another major innovation standard in the kit and available to fit the earlier kits with an easy modification to shorten the stub axle length, are quick, change wheels, incorporating a new hub design and external appearance. Quite simply a new five lobed metal wheel driver is locked onto the stub axle portion of the one piece shaft



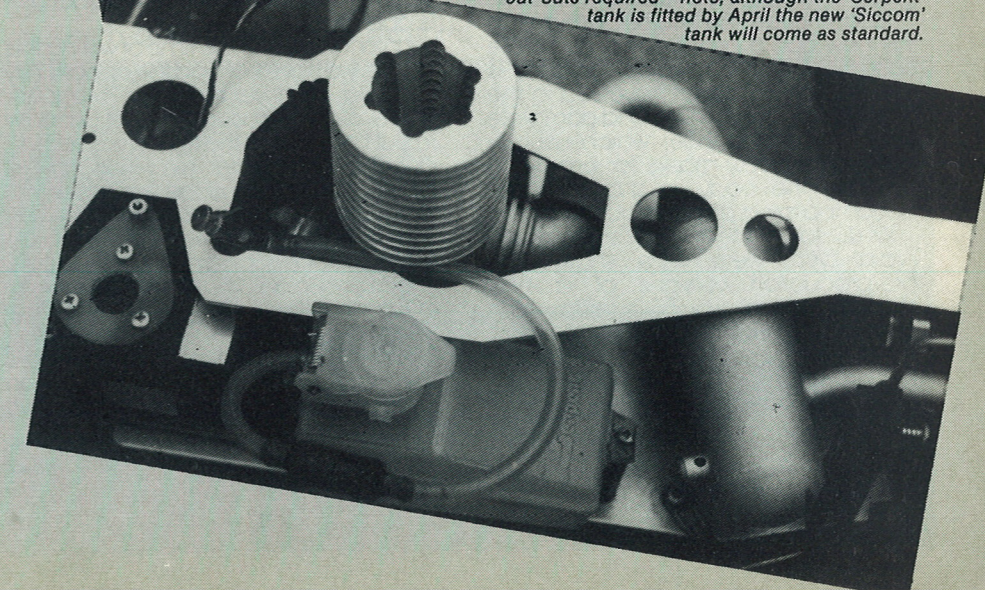
Above: Servo saver layout remains the same but battery location is brought forward under the bumper

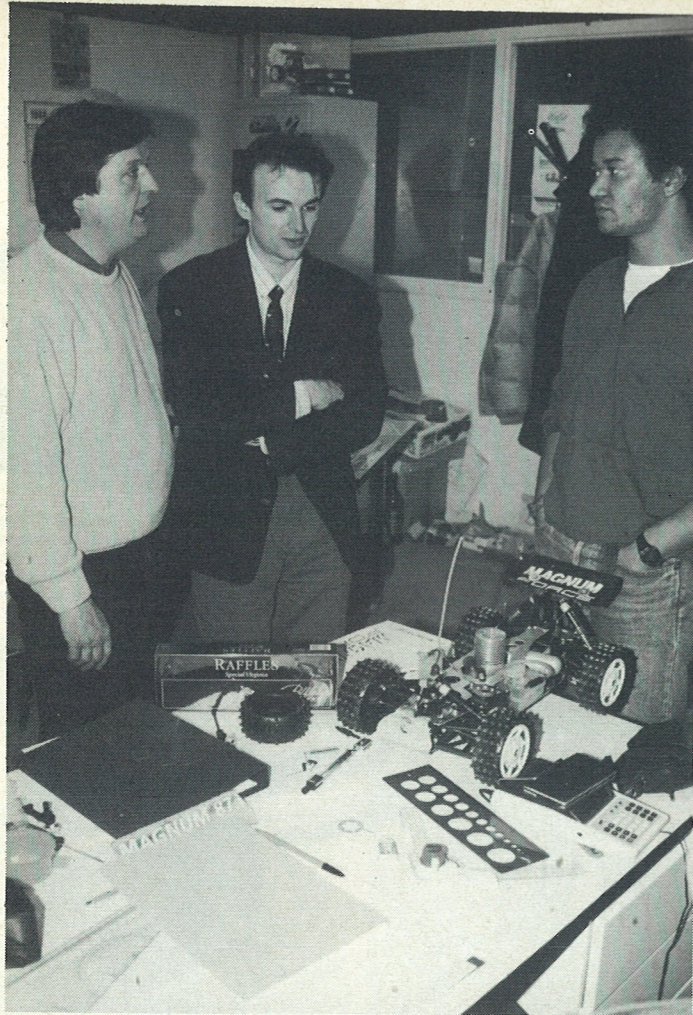


Above: The beautifully machined centre differential uses well-proven Siccom planet gears and one-way roller clutch. Below: The new layout requires the Rossi pipe being manufactured specially for the 'Magnum Force'.



Below: A new top plate includes all the cut-outs required - note, although the 'Serpent' tank is fitted by April the new 'Siccom' tank will come as standard.





assembly, by means of an M5 grub screw locating on a flat on the axle shaft. The new two-piece hub assembly incorporates a hard alloy locking arm that lies sandwiched between the wheel hub and the detachable outer rim. Both the inner hub and the locking bar incorporate the female five lobe opening and when these are both in line, enable the wheel to be pushed onto the matching wheel driver. Rotating the locking lever which is done easily using a small screwdriver blade, through its full travel in a recessed section of the outer hub, locks the wheel firmly in position. A glance at the accompanying photographs will show more clearly how simply it all works in practice! The hubs also feature a narrower rim flange than previously, as experience has shown that allowing more tyre sidewall flex has resulted in more traction. The disadvantage is however that it will now be essential to glue the tyres firmly in place!

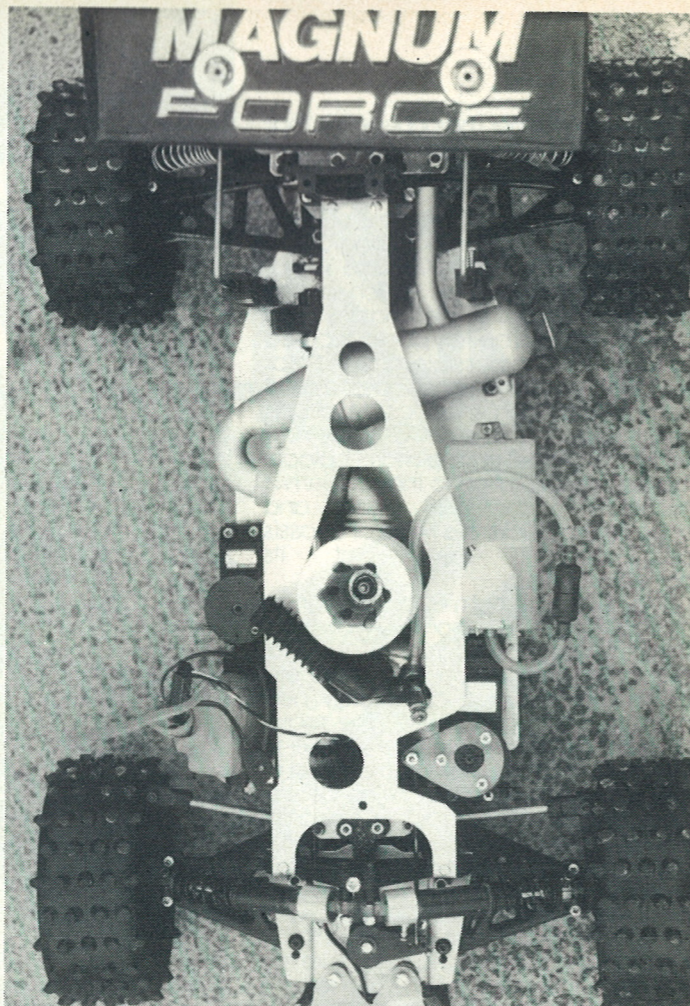
To complete the major changes to the new car, a new body is available called the 'Tenere' which typically is named after a desert traversed in the recent Paris-Dakar Rally, and complete with a new decal set which usefully includes window masks for use when painting the body, is shown in the accompanying photo sequence.

Whilst talking to the car's designers, Alain Lyon, were shown the pre-production versions of a new Sicom fuel tank which will replace the current *Serpent* tank supplied in the kit. The tank features a larger diameter filler neck, with improved lid and sealing and a moulded-in plastic fuel pick-up

pipe and improved baffles compared to the *Serpent* version. A new method of joining the moulded tank halves together will result in a more consistent and accurate tank volume, which will be appreciated by those drivers who compete at International race level! Also seen in the prototype stage and to be available hopefully by late spring are totally new shock absorbers. Moulded in Lexan as at present, but with removeable top end caps, the new units are approximately three times the diameter of the current units for a similar cylinder length! Additional features are strong 4mm steel shafts with proper rubber lip seals for improved sealing of the damper rod. Also in the design brief is a unique piston valve which progressively stiffens the damping action as the damper is compressed and a new top end cap seal incorporating a rubber diaphragm to compensate for the volume change inside the damper as it is operated.

Unfortunately at the time of writing this article, we have not had the opportunity to build or drive the new 'Magnum Force' ourselves, but with a kit currently in our hands and the Rallycross season drawing ever nearer, we will rectify this situation by the time the next issue hits the news stands! Meanwhile, the kits are available at the UK distributors *Windsor Models* and all good model shops priced at £349 to include the new body and three differentials. May the 'Force' be with you!

Moving on to the sport of Rallycross itself, I have not received any information from clubs regarding events that have



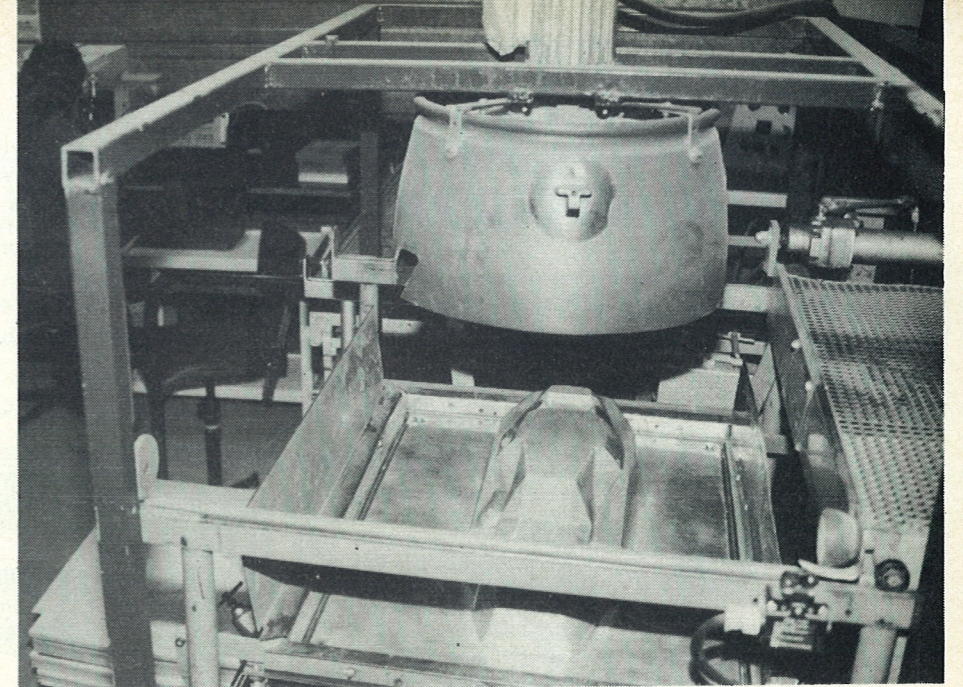
Left: Richard Stitson (left) from the Windsor Road Model Shop (Sicom importers) talks to Alain Lyon - designer and Pascal Gueye - top driver in France. Above: The new layout - different, but neat.

run recently or are planned in 1988. Please let us know what you are up to out there, as I am sure that by the wider publication of events we will encourage more people to join our sport. One development I do know of however, is that the Remote World Car Club currently based at Stoke Poges, near Slough that has had such effort and time devoted to it to produce a fine facility on a not ideal surface by father and son team of Bob and Darren Warburton, will all being well move to a new enormous Slough council facility at Upton Park. The area of land that has been allocated will enable two International-sized tracks to be laid out back to back for both 1/8 and 1/10 scale Rallycross, large rostrum and pit areas and parking areas next to the trackside. The first race to be held there will be the BRCA round in March, just after the land will be officially handed over, so don't expect all the planned facilities to be in place then. For the future though, the plan is to have the best Rallycross, permanent facilities in the country. The Challenge is on! For more information about joining Remote World Club, contact Richard Stitson at *Windsor Model Shop*.

Moving further North now, in fact to the North East and the home of my personal favourite circuit, Scarborough, one of their club members and keen racer, Steve Webb phoned me recently to voice his own dissatisfaction and that of his fellow club racers over the

lack of BRCA race meetings in the Midlands and the North of England. Steve and his friends were concerned that the BRCA were not promoting the sport in these regions and was this in fact another symptom of the much talked about North/South divide?

It is important to clearly understand that as an organisation, the BRCA is responsible for setting the rules and standards for all forms of model car racing and to encourage and promote the sport in the UK. The BRCA by its own constitution is not able to run or organise race meetings itself but its committees are always ready and pleased to advise and assist with as much practical help as possible to any club anywhere in the UK that wishes to run a BRCA-sanctioned National Round of a championship or just an invitation event. As an organisation, the BRCA would dearly love to have several sanctioned events running throughout



Above: The Sicom vac-forming machine pumping out the new 'Tenere' bodyshell. Left: 'Pascal' models the new kit parts before they are boxed up.



the country every weekend with the additional members that would be as a result. In addition, this would enable regional championships to be established with the benefit that drivers would not need to travel so far if they wanted to.

Returning to Steve's direct question regarding the lack of northern events, both the Wombwell Club near Sheffield, and the Halifax Club were not prepared to run Rallycross championship rounds in 1988 despite having run enjoyable,

well organised events in previous years. Despite pressure from the BRCA Rallycross Committee, both clubs cited lack of interest from their own members who are mainly NOT rallycross drivers) and more importantly for us to consider, lack of competitors entering the events. Without the offer or indeed knowledge of any other clubs then or even at the time of publication of the racing calendar, the committee had no alternative but to find alternative venues in order to maintain sufficient

races, and the others only offers were from southern clubs. So, all you northern racers, let us know of your clubs and if you are prepared to put on a round of the championship let the rallycross committee know. Contrary to popular belief we southern drivers enjoy racing north of Watford too!

Finally, the Scarborough club are running their annual championship round and Yorkshire Carpet Race on the May Bank Holiday (see the contest calendar for details) and they have told us that the two days' racing and the trackside facilities will be bigger and better than ever. The excellent track and location at the McCains' sports ground offers fully covered pits, covered drivers' rostrum, toilets and shower block, with camping available on site. For those with families, why not bring them along too? Scarborough offers lots of excellent and reasonably-priced accommodation and fun for all ages along the seafront! Wish you were here...?

That wraps it all up for this month. Don't forget to join us at the racetrack - you just won't believe what you've been missing! See you all soon.

Left: The new 'quick release' wheels - simple and effective. Below: The new pipe which suits the 'Force' available soon from the Windsor Model Shop.

