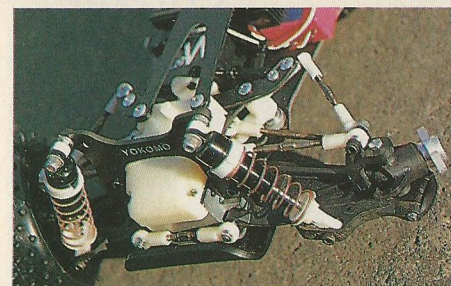
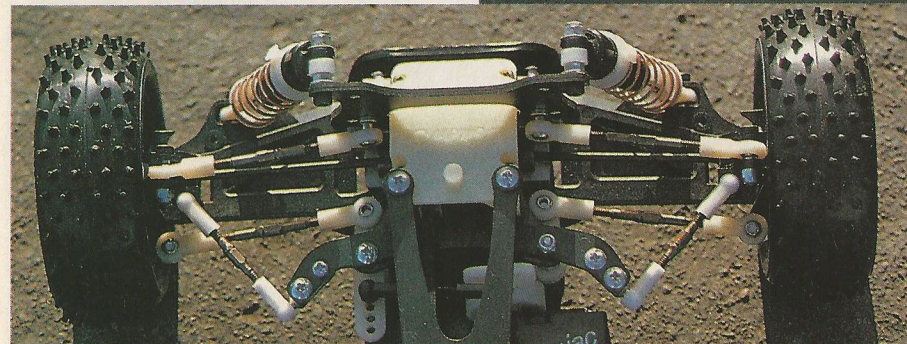


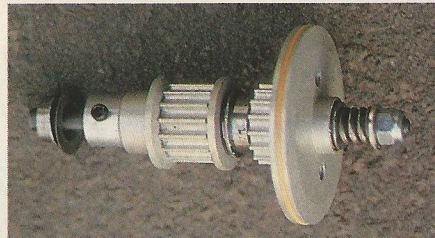
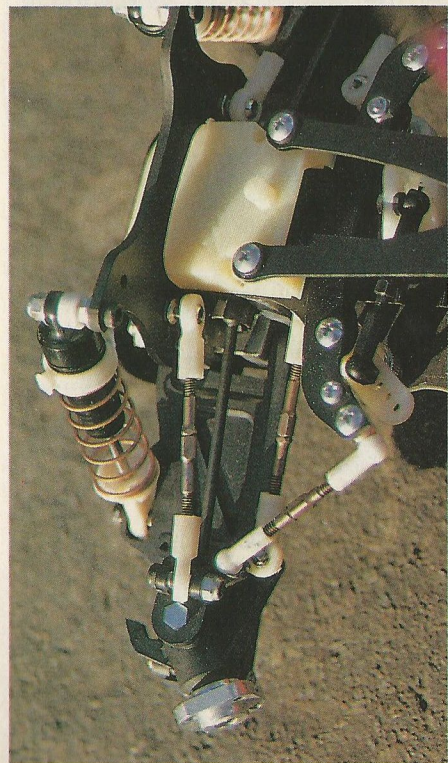
With R/C car racing as competitive as it is at top level, the need for constant improvement is essential in order to stay at the top. Nearly two years after the release of the Works '91, Yokomo are now ready to release the next generation: the Works '93. First impressions are of a car with little change, but as you read on you will see that many of the changes are subtle and small.

The '93 retains the original Works '91 body and undertray, giving the initial appearance of little change, far from the truth. You will immediately notice the new carbon fibre chassis plate. The design of this chassis is totally different to that of the previous chassis. Gone are the seven cell battery slots, the '93 chassis being designed with

Front suspension detail showing support brace.



Front end positively bristling with new features.



The new slipper shaft will also fit previous Yokomo cars.

six-cell racing specifically in mind. The cells are mounted closer to the centre of the car, improving the turn-in and allowing faster directional changes. The rear bulkhead and motor mount holes have been elongated further providing much improved belt adjustment (some

Yokomo

RRC gives you the lowdown on what could be Yokomo's best yet!



Works '93

owners may be disappointed with this as you can no longer play tunes on the belts). The overall shape of the chassis is altogether something like a 'coke' bottle, giving the car a real racy, slimline appearance.

The front and rear bulkheads and motor mount bolt to the chassis as before. In fact, the two belt drive system is retained, although major improvements have been incorporated in the '93. The limited slip ball differentials have had the steel diff halves machined down to reduce the rotating mass (a la Jammin), and it appears that the ball holes in the pulleys have been enlarged so the balls can rotate more freely, thus improving differential action. The belts are of a new design. They still remain M3 pitch but are

very nicely made piece of equipment, and is sure to be a popular addition to all current Yokomos as it will directly fit in all previous Yokomo models. Regular Associated/Kimborough/Team Losi spur gears fit, providing an excellent choice of available ratios.

On to the suspension. A number of significant improvements and changes have been made to the front suspension from the previous '91. The front bulkhead has been remachined with 10 degrees of castor, whilst the front hub carriers have been redrilled with 5 degrees of castor, giving 15 degrees overall. This increased castor should produce improved cornering, reducing power on understeer (I think the old '91 had only 8 degrees). The inner hinge pins are now longer,

thus protruding past the wishbones. A tie rod is then mounted across the front of the bulkhead onto the extended hinge pins. This is then tightened via a turnbuckle, which in turn pulls the pins tight. By doing this the wishbones pivot now only on the pins, the pins being held tight. This should stop any stretching and wearing of the hinge pin holes in the bulkhead (a common problem with the '91). I can think of easier ways to solve the problem, but this method certainly looks good!

A popular modification on the '91 was to support the servo saver and idler (RCPS Brace). A new plate has been included in the '93 to support the steering assembly, mounting on top of the bulkhead. This eliminates much of the slop and bending of the long servo post. The servo saver and idler remain the same, but gone is the wire link connecting the two, being replaced with a new steering bar (similar to Schumachers).

The wishbones remain the same as on the previous '91, as does the hub carrier (new 5° version though) and steering block arrangement.



During construction it was noted that the holes in the steering block for the king pins were considerably smaller, resulting in a far tighter fitting king pin (no more stripped holes). Redrilled front hubs, now having a four screw location for the wheels are another addition to the '93.

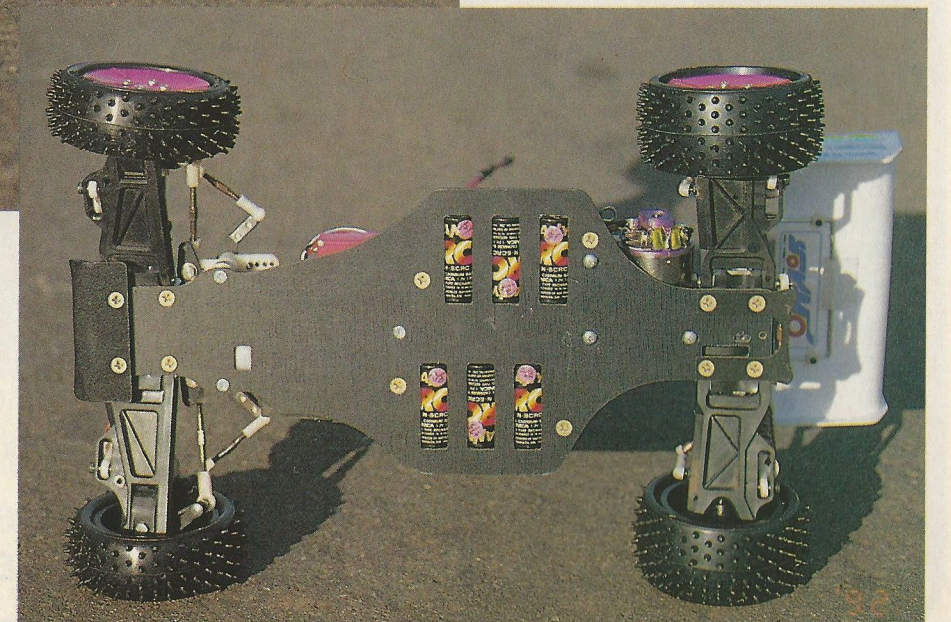
One improvement however, catches the eye far more than any other. My first impression when the kit was built was of a very racy chassis, resembling an F1 car with the body work removed, with all those links and new shaped fibreglass/graphite parts. Certainly the new front suspension brace set up contributed greatly to this image. On the '91, a common complaint was

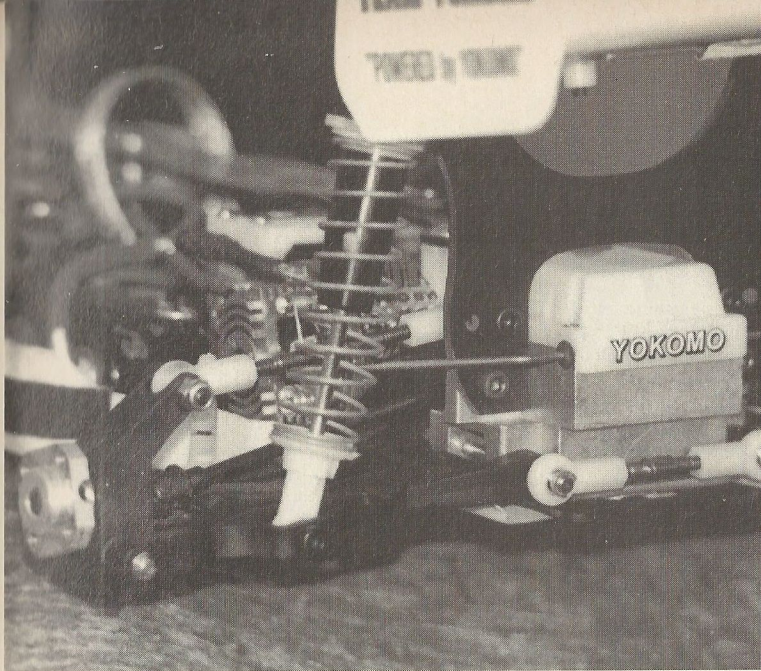


Works '91 shell has been retained, but the new moulded rear wing and upright rear shocks identify the new '93.

manufactured by Pirelli (yes the tyre people), have a new tooth form, and look to be of a more flexible material. Probably the most significant addition to the '93 is the new slipper shaft. It is based on the slipper designed by Associated and successfully used by Team Yokomo at the Detroit Worlds'. All the pulleys are manufactured from anodised aluminium, with the layshaft pulley incorporating two one-way bearings. Much of the slipper itself is based on the RC10 Stealth slipper, again the components are manufactured from anodised aluminium in order to keep the weight of the rotating mass down (a complaint often heard about the '91). This slipper is certainly a

The new 6 cell slimline chassis and one piece rear plate.





Rear end view showing new tie-rod brace.

Both the left/right turnbuckles and large upper link balls have been made from new materials. The old titanium turnbuckles that used to constantly bend, have been replaced by a new harder material in an effort to reduce the problem. Gone are the old gold anodised balls, being replaced by what appears to be plated versions.

The shock absorbers are the same design as before, although the pistons are now two hole rather than four. They come pre-assembled, and when filled with oil provided a very smooth action, leading me to question why drivers appear to constantly replace them with other makes. Yokomo's copper coloured springs are supplied front and rear. Finally, the front end has a new shock tower, providing the shocks with a more upright angle.

The rear suspension is relatively unchanged. The rear arms are the same (a roll bar hole is drilled in the '93 arms) as are the hub carriers. A roll bar is now supplied as standard. As with the front a tie rod is mounted across the inner pins to stop wear, and four hole wheel hubs are mounted to the driveshafts (incidentally, these are as before — universal). Again, as per the front, the shock tower provides the shocks with a much

more upright position, this is to improve the car over jumps and rough ground.

The new racy, 'jazzed up' appearance has a lot to do with the new shape battery plates (a definite improvement over the old strips of GRP) and the new top plate. The top plate is now supported by a central aluminium post.

TF320 and TR32 Yokomo Hot Laps tyres are supplied in the kit and are mounted on new highly rigid 2.1" diameter black wheels. Due to the wheels black colour, very bright wheel stickers are supplied, these apparently being available in five colours.

Finally, a new rear wing has been included in the '93. This wing is an ABS plastic moulding that on first impressions looks unbreakable. All edges and radii are unbelievably smooth, so it looks unlikely to be squashed or to split. Also, with its large side dams and angled kick up, this wing should do the job all wings are meant to do — to produce downforce! This is a definite must for all racers. The wing comes predrilled and is mounted on a new wing wire.

You no doubt are saying, the overall design is not greatly different from that of the '91, but then the '91 design wasn't bad, it merely needed some more thought applied to a few shortcomings. The '93 has been tidied up and the new slipper and front suspension mods should improve performance greatly, although we will have to wait and see if it can match the performance of the highly modified Yokomos' currently dominating many 4WD racing circuits.

The price has yet to be set, but we have been assured it will be approximately the same as the '91.

Available from all good model shops, distributed by CML Distribution, 4 Court Street, Upton Upon Severn, Worcestershire WR8 0JL.

that the front suspension was too flexible. Under hard cornering on high traction tracks, and when encountering bumpy surfaces, this problem could affect performance considerably. Many tune up arms and carriers have become available to alleviate the problem, being manufactured from stronger and thicker materials. Yokomo, being aware of the problem, and rather than manufacture new arms, have come up with the brace that dominates the '93s appearance. Bolting across the top of the steering assembly, the brace supports a link that stretches from the end of the brace to the new hub carrier (a lug has been moulded onto the new carrier to accept a ball joint for the link). This set up virtually removes all flex from the front suspension and certainly should enhance the performance.