

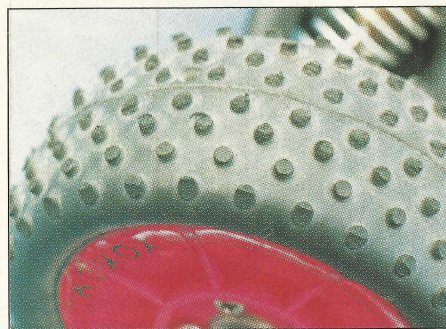
# Masami Hiroosaka's World Championship



## Winning Yokomo YZ-WCS!

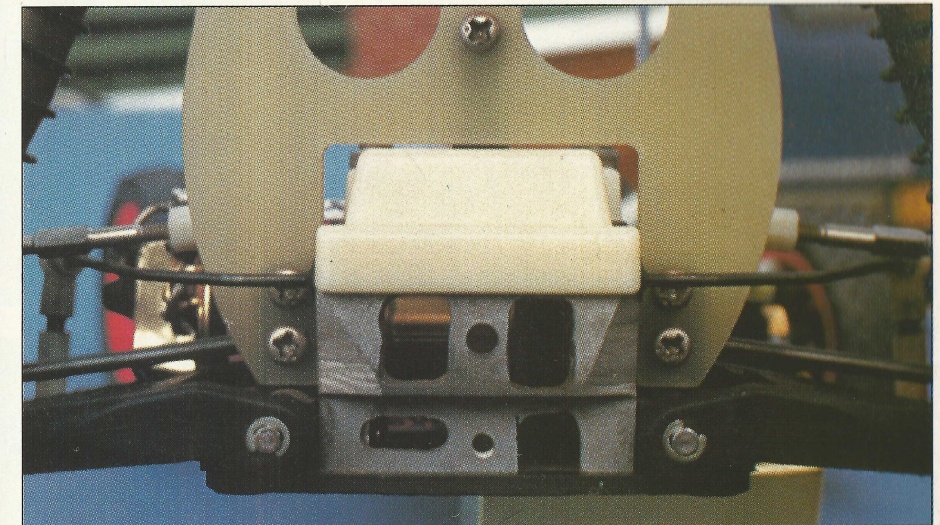
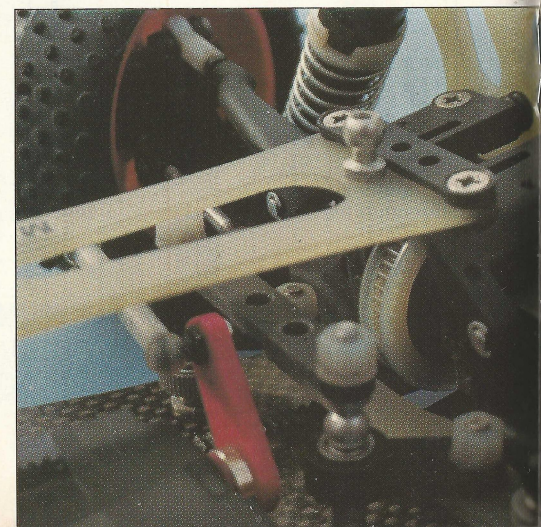
In Yokomo's eyes, the World Championship track at Basildon called for 'Something Special' to give Masami Hiroosaka the best possible chance of regaining the World Title he lost to Cliff Lett at Detroit. The track is very fast, yet bumpy, with the surface constantly giving up abrasive dust to grind away at bearings, gears, belts and pulleys etc. Yes indeed, something special was required and, following Masami's Blitzkreig TQ run, when he set the fastest time by virtually six seconds (13/ 309.01 with an average lap of 23.77. The second fastest qualifier, Ben Sturham, set 13/315.62 with an average lap time of 24.28), it is obvious that Yokomo succeeded!

The Yokomo YZ-WCS (World Championship Special) is basically a totally new car rather than a highly modified Work's '93, so bears close scrutiny.



Masami cut the outer pins on his ProLine XTR fronts at approximately 45°. The new wheels have strengthening ribs to prevent flex.

Note the narrow front diff and the shock absorbing 'O' rings between the shock tower and the bulkhead.

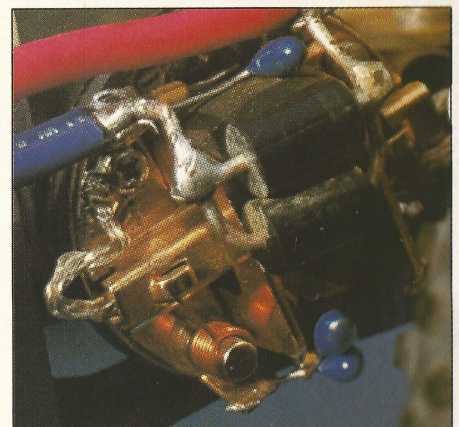


The very much lightened rear housing!

speed gave Masami no problems at all. Indeed, the car jumped very well at all times, so the weight distribution has been well sorted, the YZ-WCS flying more like a 2wd car.

Due to the use of the narrower differentials, not only are the suspension arms longer, but the driveshafts are too. These were produced in a special hardened alloy to prevent wear in the dusty conditions prevalent at Basildon.

At the rear of the car, the rear housing on Masami's car is lightened considerably, as can be seen in the photo, but this is the only area where 'hand fettling' is evident (at least to the eye). Rigid foam plastic is stuck to the chassis next to the spur gear to prevent Basildon's small stones and grit finding their way into the gear train, a neat touch which illustrates the forethought of Masami and his mechanic father, Masaki (more than one car fell foul of small stones at the



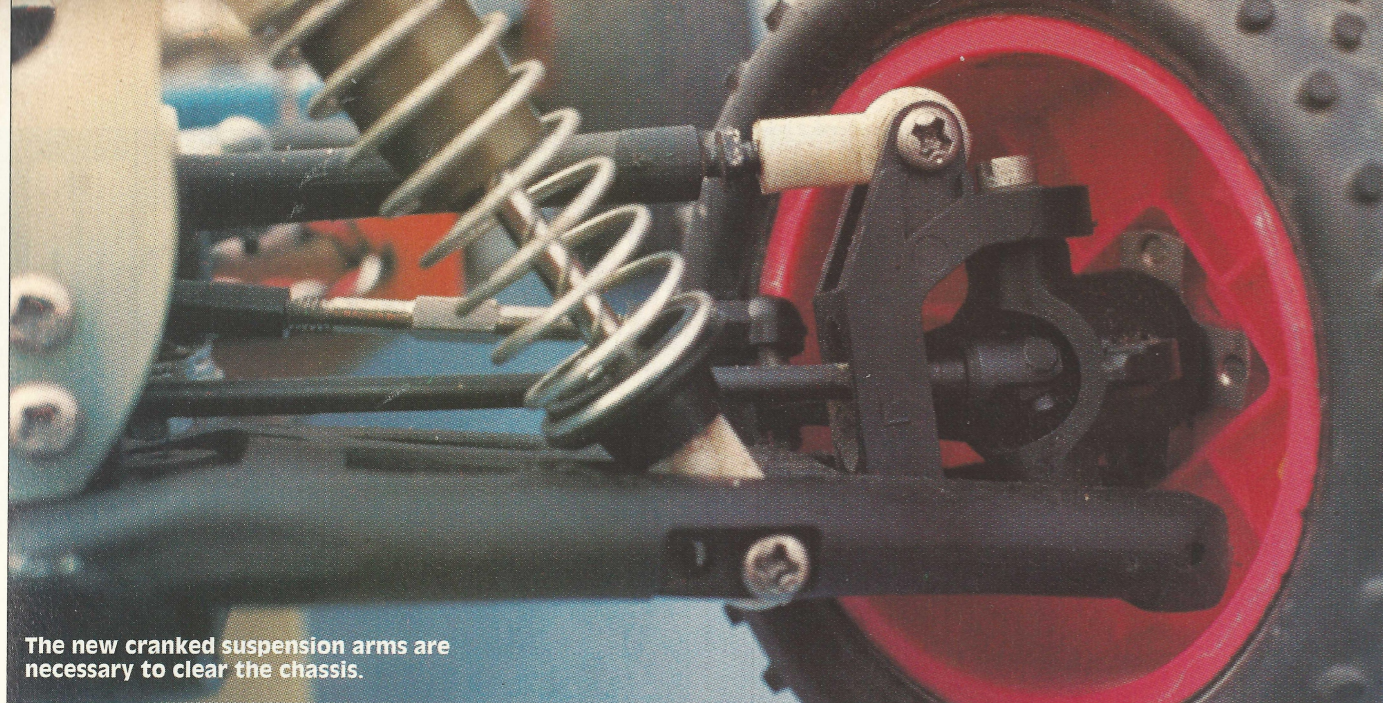
Mike Reedy's wondrous 10 x 2 motor had no less than two Schottky diodes and four capacitors fitted. Power!

The first really noticeable difference is the design and thickness of the suspension arms. These are moulded in a nylon composite for rigidity, so the flexibility evident in the earlier car has gone completely. Because the new car has much narrower differentials and bulkheads front and rear, the suspension arms are now longer and cranked to clear the chassis, and mount to dedicated mounting points rather than from the transmission housings at front and rear. This allows adjustment to be made to the rear anti squat angle for instance. The hub carriers, castor and steering blocks are retained from the Work's '93.

The graphite chassis has been produced with a certain degree of 'kick up' at the front to prevent the chassis digging in when landing off the Basildon jumps, and it was evident that landing at



No more than two top shock mounting holes show Yokomo's confidence in their set up. Note the tie rod from the rear housing to the GRP top brace.



The new cranked suspension arms are necessary to clear the chassis.

World's, with stripped or jammed belts). The differential bearings were fitted with rubber seals to prevent the ingress of fine dust, a well planned piece of preventive maintenance.

The suspension arms are quite unusual in that they are swept forward from the pivot point to the hub carrier. This set up seems to endow the car with more traction, as the car visibly puts the power down very well. Masami's car used very small and light ballraces mounted in plastic inserts to lower the unsprung weight, but the hub carriers are again those from the Work's '93. Lightened hubs are also visible in the photos, and again lower the unsprung weight.

The graphite chassis is very rigid, with a GRP top brace, braced by two pillars down the centre line of the car, proving perfectly adequate at Basildon. A tie rod also braces the rear transmission housing to the top plate, helping to prevent any alteration in the rear belt tension. One feature of the car is that the belt tension is pre set, without any adjustment possible by the driver. This also means, of course, that the tension can't change during a race or after a bad crash, but does mean that when the belt does eventually go slack that a new one is required. No problem for Masami!

When the Yokomo Team arrived at Basildon, the WCS was brand new, and the drive was transmitted, unusually, by a 2mm pitch belt at the front and a 3mm version at the rear.



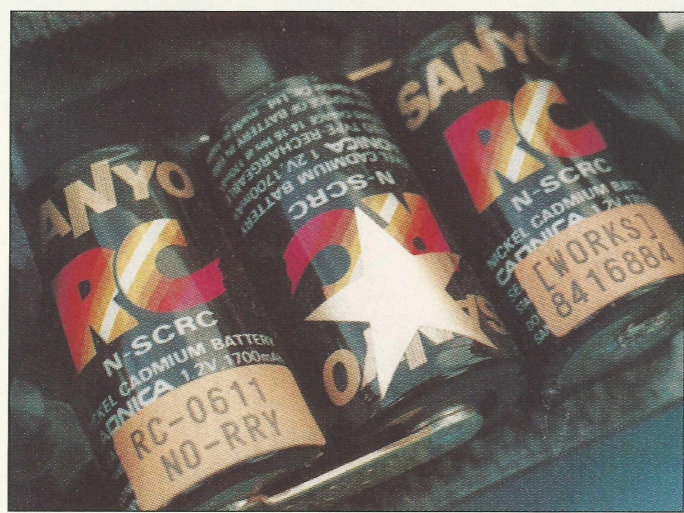
The WCS chassis features a 'kicked up' front to create more ground clearance.

Unfortunately, a slight miscalculation when working out the gearing resulted in the front wheels being overdriven compared to the rear! Reverting to 2mm belts at both ends was the only recourse, as the range of pulleys available for the front wouldn't put matters to rights!

GRP shock towers proved up to the job when going for the World title, but were mounted in a new manner from the suspension mountings at the bottom, then to the bulkheads at the top with rubber 'O' rings to allow for some 'give' in the event of a crash. This method of mounting obviously worked extremely well!

The shocks themselves were the latest type of Associated long shocks (see set up information), using a combination of Yokomo and Associated springs.

Lightening the car was high on the list when designing the WCS, so Masami's car is fitted with



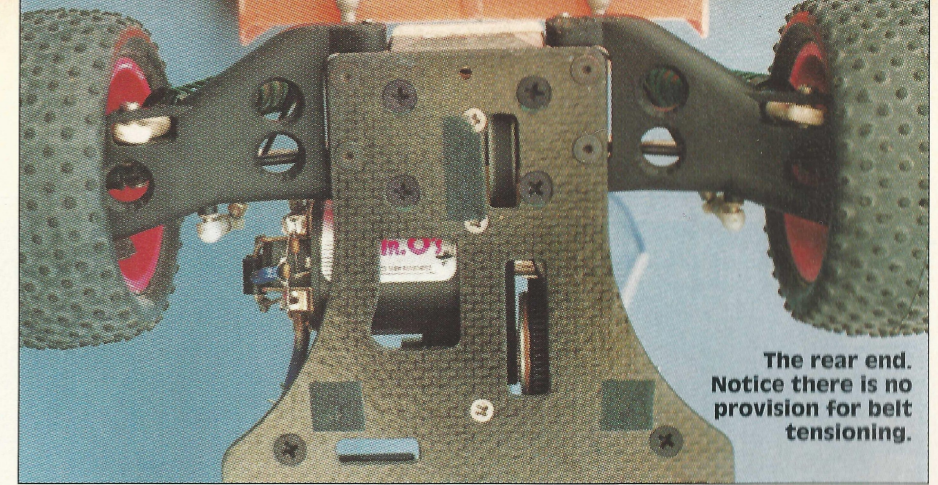
The World Champs winning 'Gold Star' Sanyo SCRC-SP cells.

titanium screws throughout, with every suspension ball joint and the kingpins produced in duralumin. The lexan undertray and bodysell also received the same treatment, both being moulded in very thin lexan for ultimate lightweight.

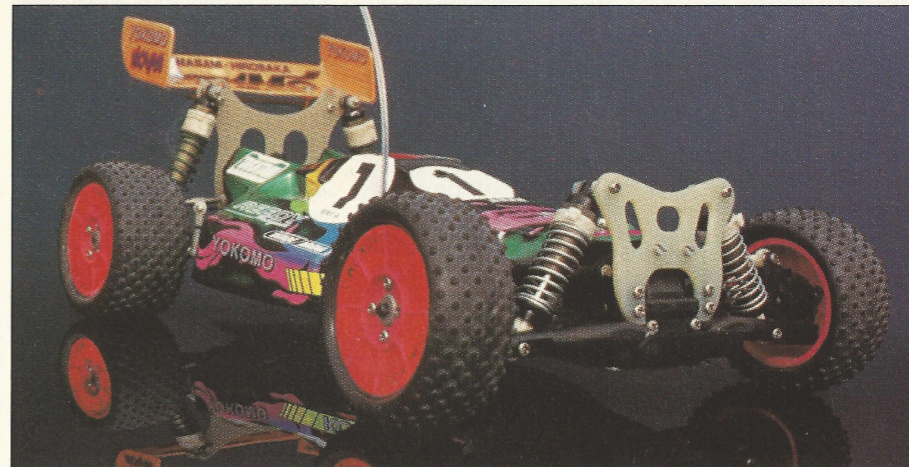
## Yokomo World Championship Special - Set Up Data

Motor	Reedy 10 x 2	
Gear Ratio	52/16	87/16 11.78.1 Overall
Speed Controller	Novak 410 HPC	
Radio	KO Esprit 2	
Servo	KO 1001	
Front Tyres	ProLine Stubby XTR PL8125	
Rear Tyres	ProLine Stubby XTR PL8086	
Front Shocks	Associated Long	
Piston	Associated 3 Hole	
Inner Spacer	3mm	
Spring	Yokomo Silver	
Oil	Yokomo #500	
Rear Shocks	Associated Long	
Piston	Associated 1 Hole	
Inner Spacer	10mm	
Spring	Associated Green	
Oil	Yokomo #350	

Masami used an absolutely ballistic Reedy 10 double to take the World Championship title, the sheer 'punch' that this particular motor possessed was a sight to behold. Masami seemed to use the power available to him to get past cars, then went into cruise mode until the power was required to get by another car. Two Schottky diodes and four capacitors were fitted to keep the motor 'clean', so this beast was obviously again 'Something Special'! We've all heard of Gold Top milk, but Masami's Sanyo SCRC-SP cells were of the 'Gold Star' variety, so were the cream of the crop so to speak. All of this power was harnessed by a KO Esprit 2 stick radio, with the receiver housed in a specially moulded lightweight lexan case, a KO



The rear end. Notice there is no provision for belt tensioning.



Masami gives to the car when it is on the track. That, I'm afraid, comes only from his incredible natural ability and the sheer amount of time that this brilliant young man puts into practising and trying different car set ups while looking for the perfect chassis.

With a World Championship Special in your possession, and with the car having already proved its worth in such spectacular fashion, it will really all be down to the driver to match up to the car's potential, so I would get practising now! Many thanks to Masami for putting on such a great display at the World Championships, and to Yokomo themselves for making the car available to us for this feature.

Yokomo Products are available from: C.M.L. Distribution, PO Box 3563, Rednall, Birmingham B45 9TS. Tel: 021 457 7768 or 021 457 7549 Fax: 021 457 7759.



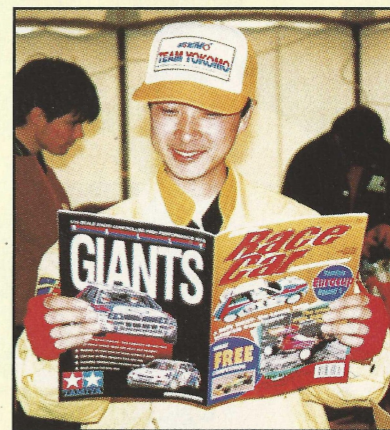
1001 servo, and a Novak 410 HPC speed controller fitted with a specially machined set of heatsinks as seen in the photographs

Masami's Yokomo WCS is really a 'one off', using as it does titanium screws etc, but the replicas soon to come on the market will actually follow the design faithfully, although minus the 'detail' improvements unique to Masami's personal car. One ingredient for success that purchasers of the World Championship Special won't be able to buy though, is the input that

The top link curves neatly around the coil over shock at the front.



# Win a Yokomo Tee Shirt Signed By Masami Hirose!



World Champion.  
 FIE. KO. NOVAK. proline. Reedy.  
 正美  
 Masami  
 YOKOMO

Yes, you can win yourself a great Yokomo Tee Shirt with Masami's signature emblazoned across the front by answering these three simple questions:

- 1) What is Masami's fathers name?.....
- 2) How many capacitors were fitted to Masami's Reedy motor?.....
- 3) What is special about the diff bearings?.....

Having given your answers, send the form off to : Radio Race Car International, Traplet Publications, Traplet House, Severn Drive, Upton upon Severn, Worcs. WR8 0JL. Your entry may well be the first out of the bag! Entries must reach us no later than 5th January 1994. The lucky winner will be announced in the March 1994 issue of RRC, Good Luck! Entries are limited to only one per person.

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