

## ASSOCIATED R/C 100

### WITH A LITTLE HELP FROM THE NEW RC200

HARDLY HAD I sat down to rough out this feature than news arrived of the RC200 a vastly improved version to make all other marques out of date, or so I thought until I had the good fortune to see the advance copy en route to the Nuremberg Toy Fair. Splendid it certainly is, and a future joy and pleasure to many, but, in keeping with the established Associated system, all marques modify upwards or downwards. Briefly, the additions include fibreglass chassis, new front end to provide full Ackerman steering, improved spring-loaded filler cap to tank, thicker rear axle. Any one or all of these mods can be added to existing RC100s. I did not mention disc brake since this is already an RC100 option.

### STARTING TO MAKE UP THE KIT

Instructions are splendid as supplied so that it would be idle on my part to rephrase them to make up a feature. Instead it seems better to elaborate on matters which presented some difficulty, or where instructions could have been more detailed. Order of assembly is straightforward: Power pod; motor mounts; brake;

clutch; engine; radio; fuel tank mounting; chassis assembly; front end; servo saver; front bumper; rear/wheels; linkage. This involves quite a bit of jumping about from one end to the other and I preferred to finish off the power pod unit entirely before looking elsewhere, apart from checking that I had all the bits!

### POWER POD

Holes are drilled or cut out to locate axle bearing blocks, clutch bellhousing and engine crankcase, with slots to take motor mount bolts, allowing some movement for different gear ratios. Mounts are drilled to take the Veco 19, though this is unlikely to be the usual propellant for most people aspiring to the RC100. However, other engines can, as the book says, be easily mounted by either drilling new holes in the motor mounts, or slotting the holes in the engine itself. The latter course should be avoided if possible since there is seldom a great deal of spare material to allow much more than a little enlargement of holes by reaming out.

Three other lightening holes are also to

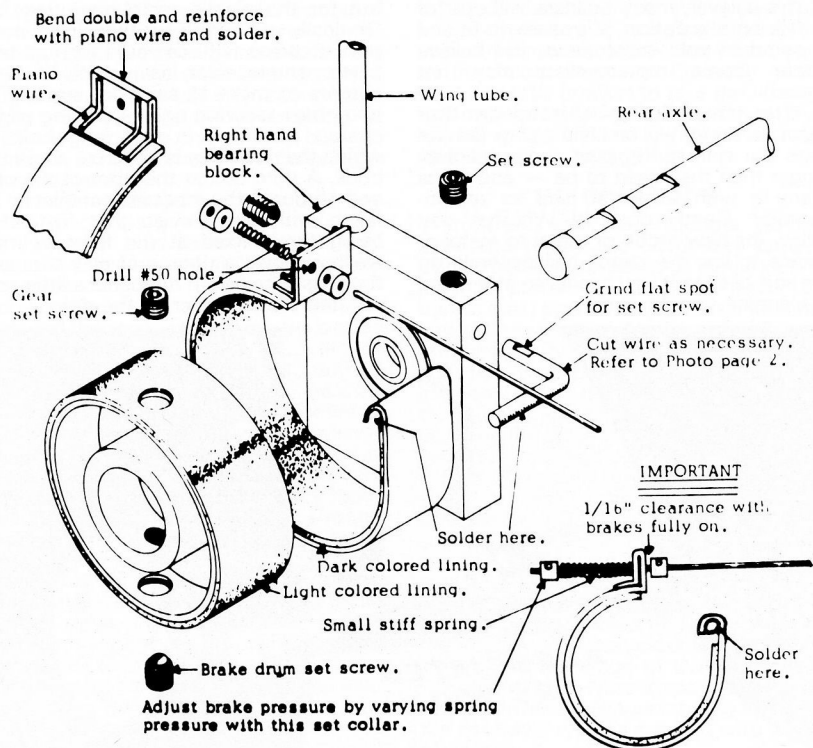
*End product! Al Chuck's Concours Winner at the Pomona World Championships . . . you can always try . . .*

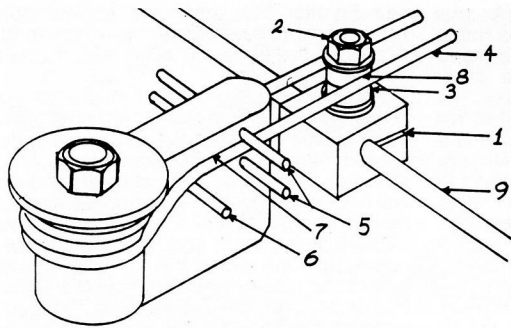
be found on the power pod. A trial assembly of wheels and axle can be made since tyres are happily already bonded onto wheels. This leads to next step, sorting out the standard brakes. A separate instruction sheet is provided for this, which might lead one to suppose is a trifling little job to be done in a tick. Not so; there is first of all the tricky business of the thick steel wire to which brake band is attached. There is plenty of wire and the greater part must be cut off as superfluous. Some trial and error assembly is needed.

Anything to do with soldering that must be firm I view with respect, and try to make up a jig so that the work is held exactly where I want it and I have only to wield the iron. Here the brake band is to be approximately  $\frac{1}{4}$ in larger in diameter than brake drum so a piece of scrap wood is cut out to this size in which the band rests snugly. It is drilled and cut so that the wire right angle fixing to the axle bearing block can be located rigidly. Other end of band is bent over as instructed after being rubbed with emery and painted with solder paint (I

use Fryolux but there are undoubtedly other good makes throughout the world) A part of the jig is cut away here to give access to this end.

For soldering piano wire I invariably use Baker's Fluid an acid flux which is ideal for steel (never use it of course for electrical joints!) Since it is acid thorough washing in water afterwards is necessary when it will not corrode. Wire end to go into motor mount can be trimmed to size, but leave enough of the other end for handling purposes, marking with a file cut where it will end in the piece of bent over brake band. File or saw off flush, only after fixing. A good sturdy bit with plenty of heat and a fairly high melting point solder are needed. Repeat HOT IRON — the secret of soldering. Get it firmly fixed. If not satisfied, heat, unsolder and do it again. Failure here will be likely to tangle up the car during a race. Clean metal bright and shiny, acid flux, hot iron and a strong job results. If you make no claim to be a solder king, do try with a bit odd bits and pieces to acquire the knack. Like riding a bicycle the knack will come suddenly and you're laughing.

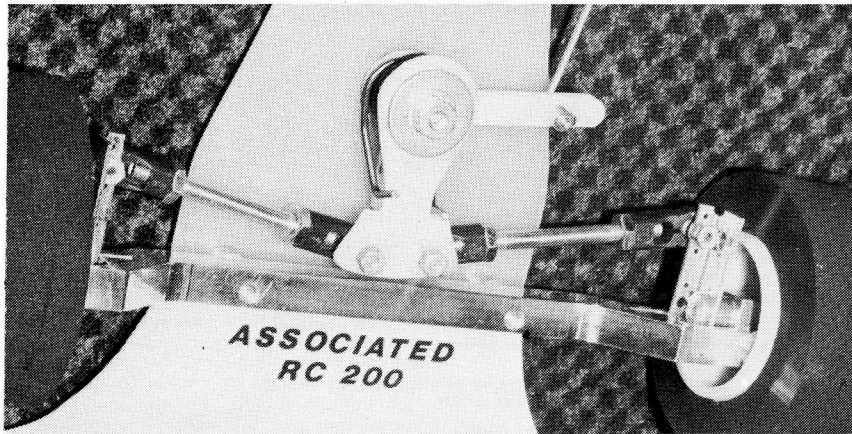




**Ball bearing tie rod assembly.**  
 1. Aluminium block for tie rod : a second hole is drilled to carry mounting screw for ballbearings.  
 2. Mounting screw.  
 3. Two  $\frac{1}{8}$  x  $\frac{1}{4}$  in. OD or  $\frac{1}{8}$  x  $\frac{3}{16}$  in. OD flanged ballbearings.  
 4. Heavy duty servo saver spring.  
 5. Two pieces of 1/16in. piano wire to locate servo saver spring.  
 6. A further piece of 1/16in. piano wire to keep servo saver from tipping.  
 7. Spring arms shaped to rest against plastic with about .003in. clearance.  
 8. At point where they abut ballbearings. This is IMPORTANT.  
 9. Tie rod goes into ball ends, and should provide 5deg. toe in.  
 You can also boil the servo saver for  $\frac{1}{2}$  hour, slow simmer. Makes it less brittle and prevents cracking.  
 Or just fit the latest RC200 steering unit! As pictured below.

For other end a little blow torch flame will melt the solder paint. For the lighter gauge piano wire reinforcement about 20swg will do, bind in place with fuse wire and touch with hot bit using quite safely here a normal cored solder. Remove any bits of fuse wire, and rub down. Final job here is to drill for the brake push/pull rod. Stick the two linings and assemble. After all this palaver, many builders will opt for the disc brake option. It is easier to fit and in common with most views, is I believe better (some motorcyclists may not agree!)

After this fitting clutch, another separate sheet, will be child's play. Do not drop the split-spring pins— now slightly bigger than they used to be — and press them in with a bench vice as recommended. Gently does it! Whether you follow the new mode of metal to metal or decide to line the clutch bell depends on the sort of speeds you expect to attain and the engine you fit.



### CHASSIS

Some power pods have a recess ground to accept the chassis plate. I have one like this and one without a recess that looks to be an earlier model. Anyway pod goes on top of plate and is duly secured with three nuts and bolts. This would be the end of it but for the plastic radio mounting tray. Originally you had to cut this out to shape, now it comes with cut outs for fuel tank, battery and receiver, leaving only the servo cutouts to make to suit your servos. The two outer securing bolts attaching pod to chassis plate are in fact long bolts on which the radio tray is secured, as per the book. A third bolt at the front of the plate and through the chassis completes the fixing with the proviso that instead of being firmly fixed at the front, a metal washer allows a degree of play to enable the chassis to flex. It all seems a little complicated but is easier in the doing.

### HIGHLIGHTS OF NEXT ISSUE OR COMING SHORTLY

**SOMETHING DIFFERENTIAL . . .**  
 All about virtues or otherwise of differential gears

**PHIL BOOTH** builds a PB International out of the box.

**Making your own castings at home.**

**BUILDING THE PUMA STOCK CAR.**

**First of the Engine Tests : FUJI.**

**Start of the New Season . . .**

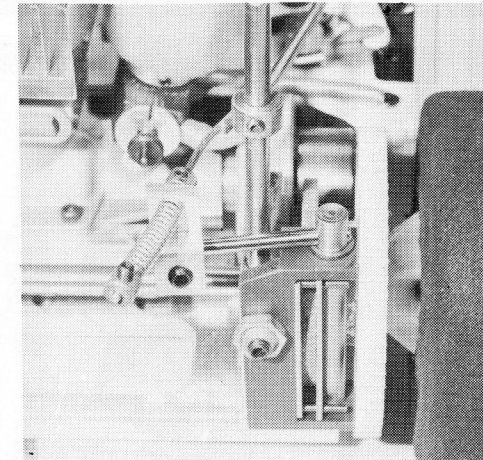
*Disc brake unit as now offered as an option. Can be very accurately adjusted for braking effect.*

### FRONT END

Originally a pair of front cross arms were assembled with the steering blocks and stub axles and then adjusted to be true and twist free. Now a splendid machined alloy cross piece is available into which the steering blocks/stubaxle assemblies are fitted. These items are the only remaining thing that could usefully be improved by a single piece casting, nylon moulding or machined unit from the solid (I hope to find time to do it for mine before the season opens).

The steering servo has now been improved in company with the front track rod. The latter now slides through a split block and is secured centrally. Ball jointed ends connecting with the steering arms. A double ballbearing unit rides on the split block and the servo saver arms are located and set between two wires through the plastic and rest against the ballbearings, thus ensuring the sweetest possible steering movement. But, stop! The latest RC200 goes a step further with a radically altered (though still a family likeness) servo saver, plus a pair of Delta(?) tie rods to the balljointed ends. Altogether a much more attractive picture and strongly recommended to the man who enjoys a workmanlike and efficient set-up. To what extent it is more effective than before remains to be seen, but it certainly looks good.

Build in tow-in to suit. Gene Husting is a great one for toe-in and sometimes frightens even his friends — but go at least half to three quarters of the way he suggests, you may go the last bit when you see how it works.



### LINKAGES

Sketches provided make these very clear — far more than words could. Very little changes will be required if disc brake is fitted, since there is still a push/pull action. Some mods. may be necessary if any of the more sophisticated carbs, such as the Thorp are used. Certainly in this case fit a little bracket to take the auxiliary high speed needle valve rather than leaving it floating free on a fuel lead as I saw a few weeks ago!

### THE ODDMENTS

Front and rear body mounts, bumper plate and follow the customary pattern. Choice of heat sink depends very much on personal preference. The "big heads" are for the most part still being hand machined and quite costly. Associated offer an attractive and different combined head style like the slip-on rectangular heat sinks but combining a head; Super Tigre include theirs with the engine. Probably others will be doing the same as the demand heats up in the summer as it is bound to do.

Silencing again is a matter of choice. I would not look further than the "dustbin" offered by PB and Ted Longshaw in several varieties. If fitted in a stand-up position a little extension platform cum rear bumper is worth fitting and neatens off that end as well as strengthens it (This is where you are most likely to be getting the knocks — always assuming you are ahead at some stage of the race!)

Final thought! Nuts that are likely to be nearly permanent fixtures during the life of the car could well be secured with a drop of Loctite.