

DELTA SUPER J

This is the World Record Delta Super J (see page 48). Note latest Delta silencer and new paper air-filter; also "side bumpers" and third body post at front.

THE Delta Super J is a connoisseur's car; don't make any mistake about that. Ideally, the builder should have done his homework on the earlier car now designated the Panther (as I have) when the subtle improvements would be more readily noticed. However, since this is an unlikely state for most of us I will try to emphasise just those special points.

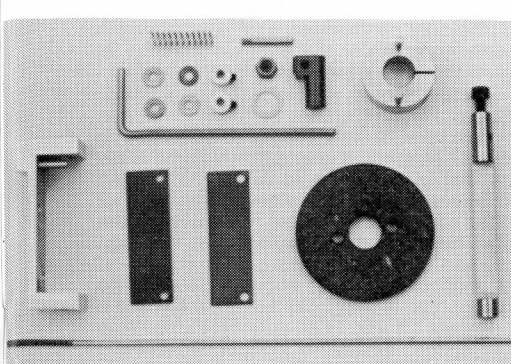
Starting with the hard bit first, as I thought, I tackled the installation of the disc brake gear. In common with most manufacturers now on both side of the Atlantic Delta have gone for a fibre disc with steel brake plates instead of the earlier steel disc and fibre plates. Initially the fitting sheet looked formidable — with drill this and drill that all over the place. But my clutch hanger was already drilled to receive the brake housing. Only fitting requirement was that the holes were countersunk but were intended to receive caphead screws. Instruction says drill out one-eighth deep: what is required is a 5/16 in endmill to counterbore the holes, or re-grind a drill to do the job. I also followed the instruction to re-locate the pod space rod though I still can't see why it was necessary.

Before doing this job I had actually read all the building instructions through and spent quite a bit of time on the exploded views provided. First useful tip was to use Scotchbrite abrasive pad for polishing the

aluminium parts. Our local supermarket actually sells it at two pads for 25p and I can highly recommend it. Nearly all the other tools listed I already possess or had obtained for the earlier Delta. All chassis screws are flush fitting aircraft type and require the special HTD788 bit since the slot is curved in depth and sweeps out in plan like an ice-skate blade. Any ¼ in square driver handle will fit (mine is ex-lawnmower tool). These enable the underside of chassis to be absolutely smooth — a great advantage when riding over the car in front!

Next comes the bit that rather shocked me before. Cut down the crankshaft of your engine, in my case the rather nice K & B recently tested which has been kindly "breathed upon" a little by a skilled friend. When trimmed it offers up only a couple of threads, but never mind, nothing is going to be screwed on it; the flywheel is an interference fit on the crankshaft. It is forced open by backing the clamp screw against the clampscrew safety pin. This all takes up several drawings and lots of words but is the easiest thing to put together.

New to the Delta is the provision of normal type engine blocks. But they go a step further by providing an engine adjust plate on which the engine blocks are first mounted. The engine is then attached and capscrews installed with Loctite. Next the



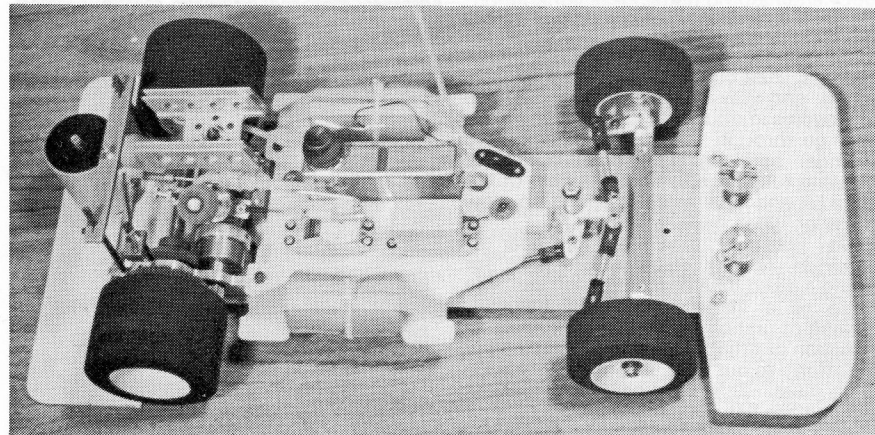
Component parts of the robust Delta disc brake outfit.

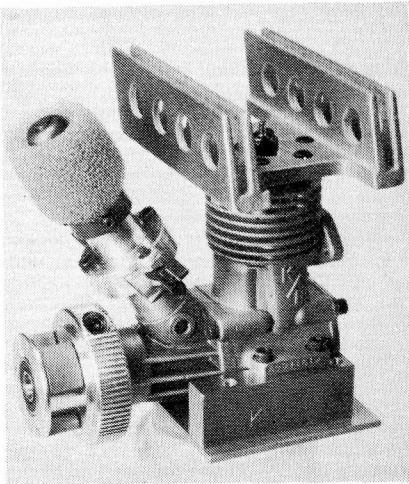
axles no longer need be ground back to avoid protruding when locknut screwed home — they are just the right length. Standard fitting for wheel hubs are nylon bearings — a pair for each hub. This is really adequate, wheels spin sweetly. There is the option of ballbearings for those who consider them desirable but try the nylon bearing first and then decide. The steering assembly connects up with ball joints and drag links. These housings can be snapped on and off the balls without damage (instructions have omitted the "out" part!)

Back to the engine. Clutch has the latest rulon flyweights — three in number. Assembly is simple; just tap the pins through the thick side, trapping the flyweights and taking care not to put pressure unduly on the thin part receiving the pins. I have three extra pins in case I lost any on the floor — thank you Bill Campbell! These flyweights (shoes) can be worked upon to provide settings for high medium or low traction. The enthusiast will have a spare set or two to fit as need arises since the breakdown of the set-up is ridiculously easy and quick (those extra pins will come in useful). Pinion gear is secured in place with a setscrew and can be changed in a flash. Even allowing for a bit of adhesion with a "soft" Loctite change could be made in less than a minute.

Moving forward next new item is the plastic chassis stiffener which is self-tapped to chassis and forms forward mount for radio plate. Servo saver is the well tried Delta design and common pattern these days for most of them. Front suspension assembly again contains changes. Steering blocks are no longer machined from the solid but are now very well finished castings though to the same pattern. Kingpin bushings are no longer required — kingpins go straight in. Stub

Delta Super J duly put together. Neat "radio bags" in red vinyl make a neat job. Rear bumper as shown is temporary — an ally plate with wire bumper is the intention.





K & B with Delta slide carb and filter fitted plus the Delta heatsink bolted down on machined original head. Neat interference clutch/flywheel with the three rulon shoes.

This time with a genuine Delta slide valve carb and the new "pipes everywhere" Delta fuel tank assembly is very satisfactory. I also have the peculiar Delta heatsink. Just like a bit of Dexion I thought until I really looked it over. I am converted and will never — well, hardly ever — use any other. It overcomes all the shortcomings of press over the top heatsinks and seems more robust than machined "bigheads". An additional fitting is required to replace the original finned head. For the K & B it is a tiny little thing and the holding down bolts provided go outside it. I did what anyone with the facility will doubtless do, I machined off the fins on the K & B head in less than ten minutes. Just chuck in the three-jaw, fair speed, and very nearly any tool will take off the fins in double quick time. The bolts now go through the cut down head. No stronger or better I suppose but more pleasing to me. I also save the cost of the extra bit and have more to spend on glow plugs or what have you . . .

No platform type rear bumper is provided, though there is provision for fitting a stout wire bumper which can also serve as a lifting handle for marshals instead of grabbing the wing. But with an intention of fitting a dustbin silencer I need a platform to put it on, so an ally extension is a must. This can be fitted without spoiling the flat nature of the underside of chassis. Note here that engine adjust plate

is the only obstruction here so it is worth while to chamfer the edges of this bit to give the slipperiest possible underside.

Pictured here is the very very latest Super J fresh from its triumphs in Florida with a new 24-hour record to show for its pains. This has the latest prototype 80db muffler (silencer) fitted as will be needed this season as well as a new paper-type air filter prototype. Silencer fits between the rear hangers and may well be the best reason for changing location of strengthening rod noted above. The record car is also fitted with radio plate bumpers offered as an optional extra. Note too, that an additional front body retaining bolt has been fitted using the hole provided on the chassis plate.

In fitting body advice is given that front bumper should be shaped exactly to receive body, in my case the ever popular Porsche 30KL. This goes snugly round and should have a longer than usual life. The record car had the front end doubled up with an extra thickness of body nose.

What else should we say about the Super J? There are the stout heavy duty servo arms (wheels they call them) and I particularly like the little red vinyl covers that go over receiver and battery before lashing them on the radio plate. So much better than the plastic bags the kit came in! Then there is the Delta antenna with nylon tube and bolt. Pricy, but worth it — it does its job. I may never do justice to this outfit but, by gum, this season I'm going to have a go, old age and all!

This write-up has been cut a bit to allow room for report of the new Delta World Record Run at Miami on pages 48/49.

The long way round! Routing brake servo rod between filter and crankcase enables a longer fulcrum arm to be employed — but don't press the fuel leads onto the hot crankcase!

