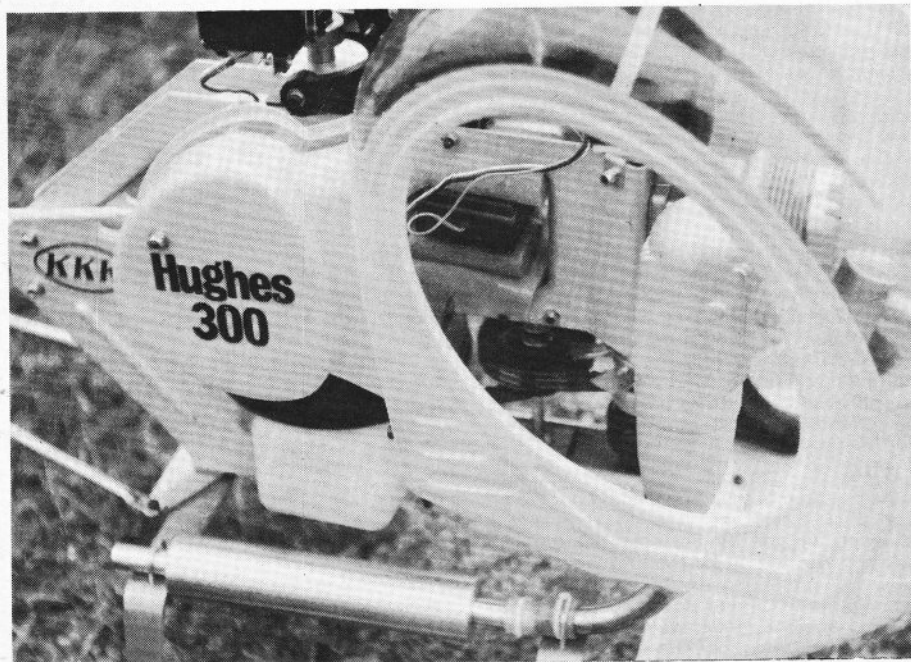


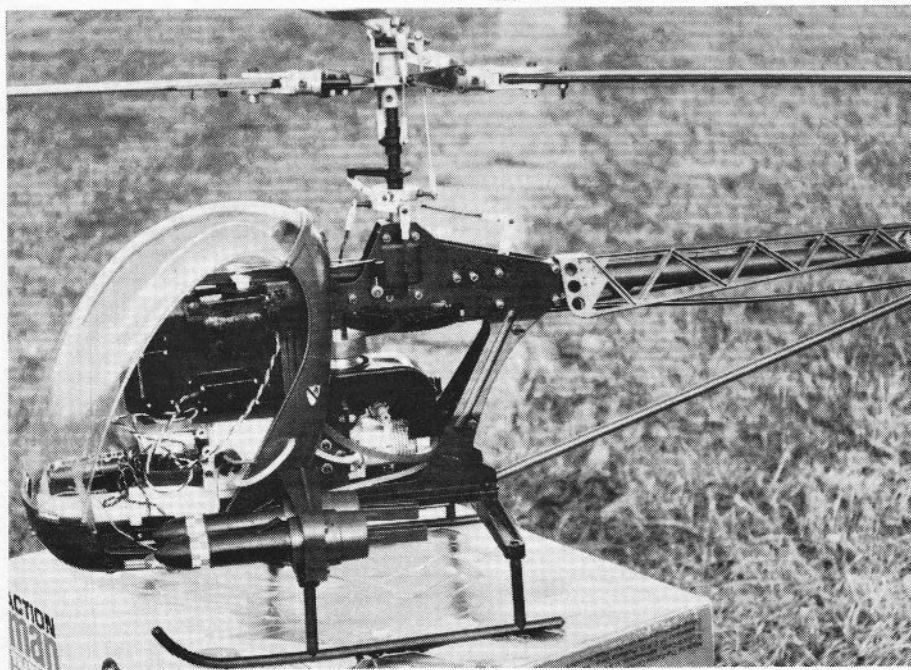


by John Heaton



Close-up of the KKK Hughes 300 (above) shows the standard silencer and add-on silencer.

Action Man pod and details added to the Baron 20 (as shown below) gave the original machine a new lease of life.



A FASCINATING little model came about after a little contretemps with the *Baron 20* discussed in last month's column. I had been flying the model for so long that the receiver battery went flat in the air. This machine is so stable that she hovered steadily for a few seconds and gently drifted away out of sight and I was lucky to find the model in the side of a tree. The damage was mainly confined to the cabin, undercarriage and blades. While surveying the wreckage, I realised that the cost of the repairs could possibly be reduced by using the decidedly 'different' looking fuselage of a toy *Action Man Helicopter*, rather than buying all the special *Baron 20* parts.

Firstly, I restored all the mechanics to flying condition, then laid out the components alongside the *Action Man Helicopter*. I sawed the back of the canopy off, added a plywood cockpit floor and within half-an-hour or so the conversion was taking place, for after all it is only a canopy replacement.

Appearance in the air is quite refreshingly different, but it is pleasing to note that the performance has not been really altered. I also tried quite a few temporary little mods like fitting a wheeled undercarriage for taxiing, floats for off-water operation, etc.

Perhaps the most interesting modification was the use of Kalt *Robin Autogiro* blades. These have a lifting section (flat bottomed) as opposed to the *Baron 20*'s standard symmetrical ones and I figured these would increase the model's efficiency. This certainly happened for I was able to fly the model at a lower rpm. I hope the photos tell the rest and leave you heading for the toy shops.

KKK Hughes 300 Glow

Readers may remember a rather satisfactory review of the petrol powered KKK *Hughes* in the January '82 issue. As I was running a bit short of demonstration models, I decided to return to this model and got a glow powered version assembled. Like the petrol powered model, the model comes ready assembled, although you have to fit the engine (an O.S. 50 was used) and radio. I was pleased to find that both collective and tail rotor servos mount on servo tape with an 'O' ring strap, therefore mounting these two servos only took moments. Cyclic servos are bolted near the mast on ready-fitted mounting brackets and with an hour or so the model was taking shape. Fitting the engine and clutch assembly was straightforward, transmission being a two-stage toothed belt arrangement. The clutch assembly is good, employing a metal one-piece clutch like many Schluters. The starting arrangement is

The Hughes 300 waiting for test.

also good, with a bottom mounted cone for direct starting. Final details were mounting the blades and the head and fitting an auxiliary silencer to the standard aero version, a practical system which saves having to buy a special one.

Taking stock of the situation, it was realised that assembly had taken just four hours from opening the box to finishing the model absolutely ready to fly. So now we reach the interesting bit. The O.S. 50 fired up uneventfully although the starter had to be pushed onto the cone quite hard to grip without slipping. A nice detail noted here was that the tank is positioned about three inches lower than the engine, reducing the chances of the engine flooding.

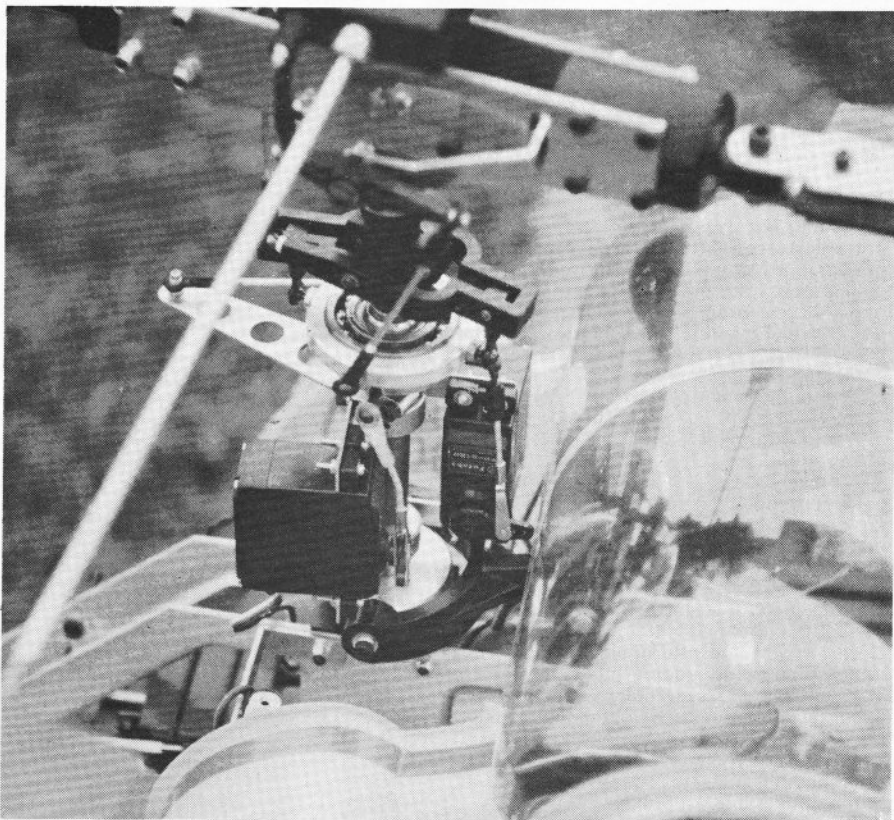
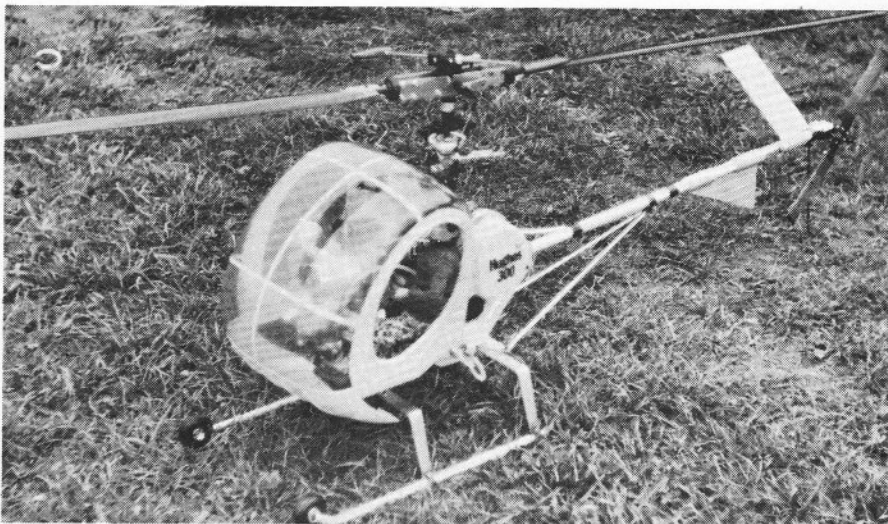
In flight the machine sounded very sweet, the secondary silencer I had fitted making the exhaust very quiet. Overall feel and sound is very much like a tune piped *Heliboy*, stability being quite good but the model is extremely manoeuvrable. The model does not seem to respond to the low rpm set up that I like but certainly doesn't rev excessively. Appearance in the air is good although the large size emphasises the lack of detail, but there is plenty of scope for prettifying up the model with added items. I must say, though, that as a basis for a super scale machine you could do better starting with a different model.

I feel the value of the KKK *Hughes* is the way you can have a reasonable scale representation at no great cost and little effort, and of course, the model has the same layout as any trainer with its metal frame and boom construction. Incidentally, the model is very light for its size, I have a customer who is flying one with an HGK 45.

I found that the KKK rotor system is more susceptible to vibration than Hirobo or Kalt systems and doesn't seem to like having its blades mounted loosely with centrifugal force keeping them in position as per normal. It will fly like this but shakes a bit but, as long as the blades are balanced properly, tighten them in position and the model runs very smoothly indeed. The rotor system is not as touchy regarding vibration as the petrol powered version is, the reason I suppose is the heavier loading of the petrol job.

Bits and pieces

I routed the receiver aerial by coiling it neatly around the large plastic collective pitch lever and found no glitches and plenty of range. The engine has a little fan without a shroud for cooling hence accessibility is excellent. Toothed belt transmission runs very quietly and shows no signs of wear as yet. Clutch operation is excellent; no drag, no slip. One small criticism is that the plastic canopy is a bit fragile. All in all, the KKK *Hughes 300 (Glow)* is a worthy contender in the medium price bracket.



Bottom left: that Action Man canopy and rocket pods in close-up — some folk might even start off like this. Bottom right: underside view of the KKK Hughes 300.

Above: rotor head detail of the Hughes, note the servos mounted on the mast.

