



hirobo FALCON

Reviewed by Steve Bennett

I WAS VERY pleased when asked to carry out a review on the **Hirobo Falcon** as I am still very much in the learner stage and thought this would be the ideal model on which to complete my training. I had also heard that an autorotation device (freewheel) and a *Hughes 500* body shell were to be available for this model; so it was not just a basic trainer but could be converted to a very advanced model for the competent pilot.

The Kit

Many other manufacturers could

learn much to their advantage from the way this kit was packed. All parts were laid out in individual compartments on a plastic tray which very much simplified my first job i.e. that of identifying the components and their respective positions on the model.

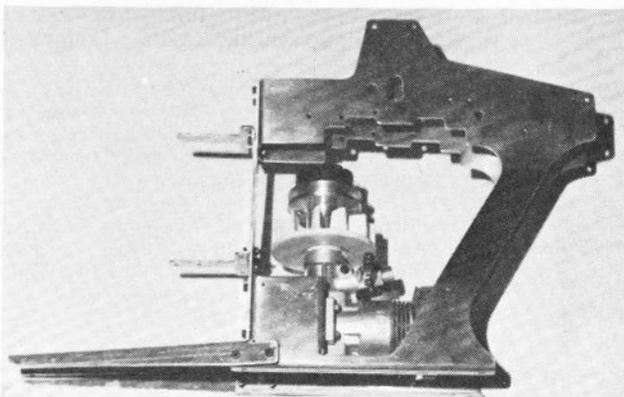
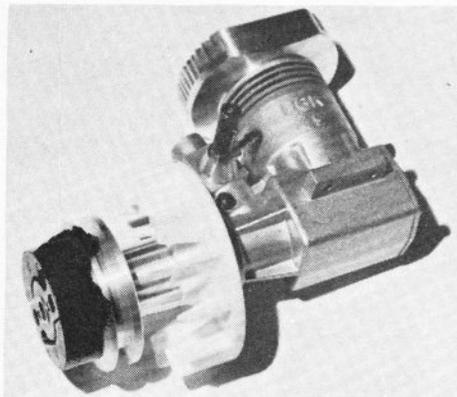
Construction

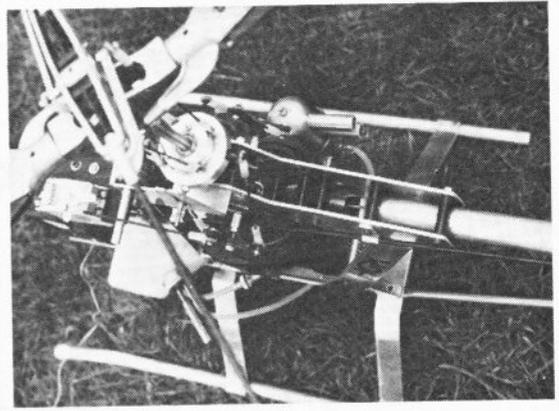
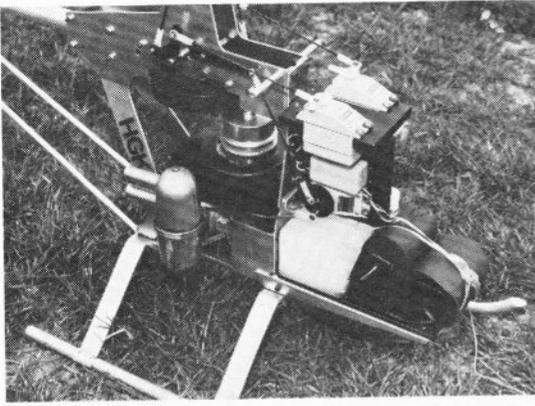
To describe the construction of the *Falcon* step-by-step would probably be very boring, and a useless exercise, unless the reader has a kit in front of him. In which case, he has his own construction details anyway!

I will, therefore, contain my remarks to those points which may help would-be builders of this, to my mind, outstanding model.

Firstly the engine. I intended to fit all the optional accessories at a later date, including as much scale detail as possible with the *Hughes 500* body, so chose what I believe to be

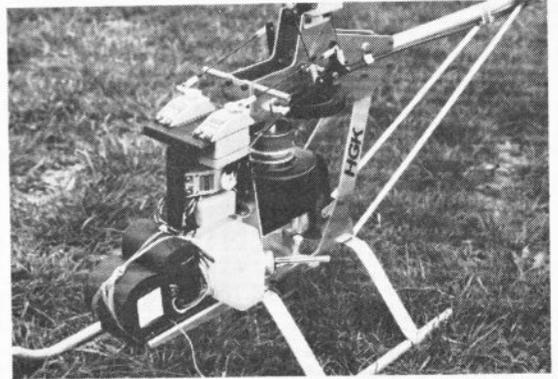
Below left: HGK .45 complete with fan, flywheel and centrifugal clutch shoes. Below; motor fitted into basic fuselage frame which is a very strong, well designed unit. All parts were a perfect fit. Flight tests proved the HGK .45 to be an ideal power unit for this versatile model.





These three pictures were taken to show the radio installation and servo connections to the various control units. They also emphasise the very strong construction and excellent design of this very attractive model. Note the glass-filled nylon reduction gearing and tail rotor drive which is taken via bevelled gearing from the top surface of the main reduction gear wheel. Note too, the very neat method of servo mounting and the very well designed tray, in front of the fuel tank, to which the receiver and power pack are held by rubber bands. The picture at top right also shows the connections from the swash plate to the collective pitch rotor head. The silencer shown is by Hirobo, chosen because it fitted the motor perfectly. The mechanical mixer arm for motor/tail rotor was not used as Steve used the Futaba J series radio system, which has mixer controls on the Tx.

Bottom left; close-up shot of the tail rotor unit. Bottom right; a clear shot of the rotor head and swash plate with connections to the collective pitch and fly-bar.



the most suitable engine for this model — a *H.G.K. .45*. I must stress that this was a personal choice, and that any good .40 motor will suit the *Falcon*. It would, however, be sensible to consult the U.K. distributors, if you are contemplating building this model, as to the most suitable motor, for the following reason.

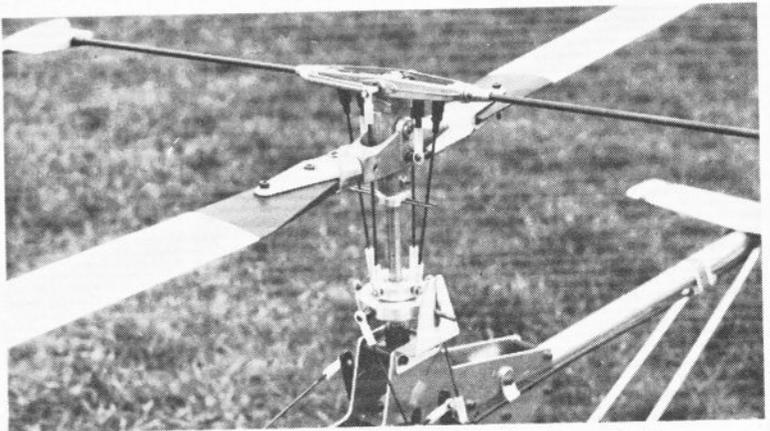
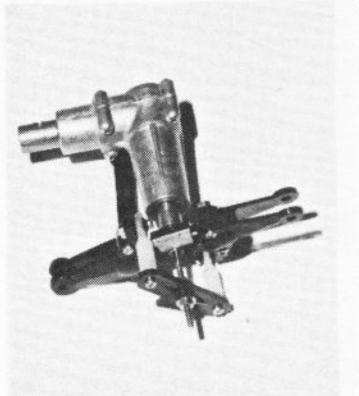
In order to fit the flywheel the original prop driver with taper cone has to be removed from the motor and a new taper cone, supplied in the kit, fitted. The cone supplied does suit a variety of motors but it

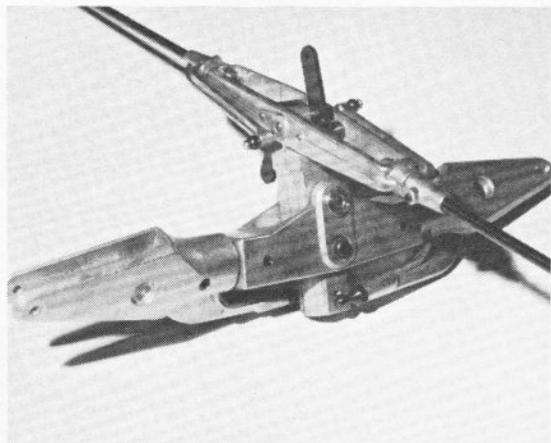
would be a good idea to check. The distributors may be able to assist by providing a suitable cone for the engine of your choice.

An important point at this stage of the construction is to ensure that the cooling fan and flywheel assembly, which seats on the newly fitted drive cone of the engine shaft, is concentric to the shaft before final tightening of the driveshaft nut. It is advisable to use a smear of 'Loctite' or similar locking fluid around the seating of the fan and flywheel plus of course, on the thread of the crank nut.

Whilst on the subject of 'locking fluids' — a warning — do not allow these fluids to come into contact with any of the plastic parts, unless of course, you like to watch plastic dissolve 'before your very eyes'! I find it extremely difficult to write the construction review of the mechanics and not repeat the instructions shown on the plan as, if I don't, I have so little to relate!

It goes together so easily, and so fast, just by following the plan — what more is there to say! I would mention, however, that instead of rushing into things, I carefully





Above: close-up shot of the main rotor head ready for fitting to the main shaft. Right: Steve lifts the Falcon off for the flying shots — note the low C of G of this model, which gives excellent stability. Note too that Steve is using a Tx tray — a very useful accessory for the helicopter pilot.



examined all components of the various assemblies i.e. rotor head with collective pitch, tail rotor etc. before putting the parts together — using epoxy adhesive and locking fluids where shown on the excellent four sheet plan.

The cockpit canopy of the basic Falcon is a very nice one-piece unit of glass fibre. This required only a light 'rubbing down' before priming and painting.

Radio Installation

Full radio installation details are shown on the plan. I fitted my Futaba 'J' series H/C set.

Trimming out and flying

As I stated earlier, I am a comparative newcomer to R/C helicopters, so thought it advisable to have my *Falcon* test flown and trimmed out by Dave Nieman Models, who distribute the Hirobo kits, before I risked operating the controls myself. I really need not have bothered as it needed hardly any trimming at all and when I had my first go 'on the box', I found it extremely easy to fly. Its stability has to be experienced to be believed!

To sum up, an excellent kit which goes together like a dream and a

model which I would recommend all newcomers to our hobby to take a good look at before spending their money. It is an excellent trainer and general sport model in its basic form, and, if you want a scale model — fit the *Hughes 500* shell!

Manufacturer:— Hirobo Industrial Co. Ltd. Japan.

Price:— £139.00

Below left: a nice hovering shot which shows the attractive lines of the basic Falcon. Below: this rather unusual picture was taken just before touch-down — our telephoto lens brought the spectators a lot closer than they actually were, they are, in fact, well clear of the flight area.

