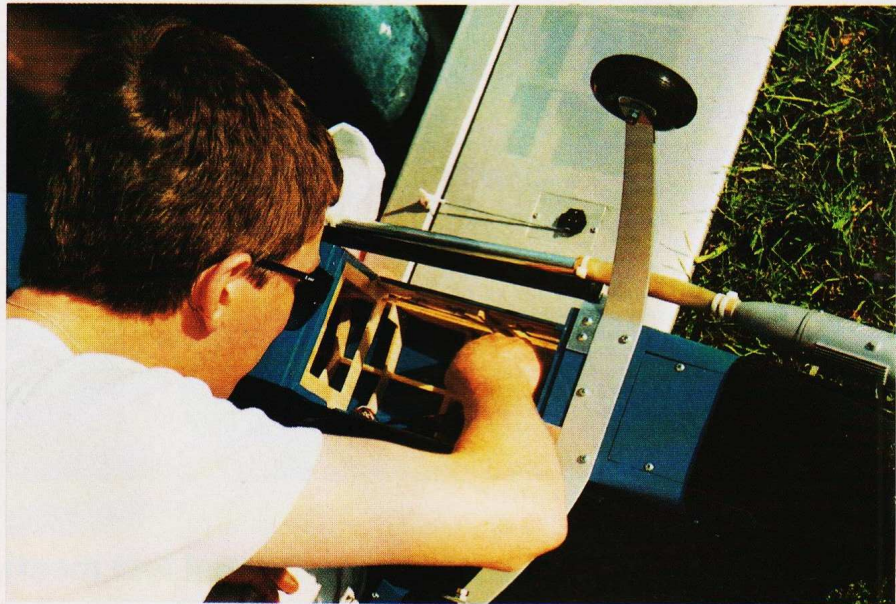




# LOAD★STAR



**PILOT**



"Squarish", but not unpleasant lines of the "Load Star" are improved by the addition of wing struts and cabin glazing. Irvine 61 provides all the power likely to be needed for carrying or towing. Note, in the assembly pictures, the large area for the load carrier, made possible by having a taildragger configuration. Note, also, the separate servos in each wing panel for flaps and ailerons, the substantial wing joiners and the silencer extensions.

# KIT REVIEW

**I**F YOU ARE ONE of those modellers who likes to do something different from time to time, flies in displays, or even just likes larger than average models, then why not build yourself a pilot "Load Star!" The model is purposely designed to carry a payload, i.e. piggy back launching a glider, dropping sweets etc. or: as in the case of the review model, carrying a camera (no I don't live near a nudist camp). With a quoted payload of 5lb. it stands to reason it is larger than the average sports model. In fact the wing span measures 77 1/4in. and the fuselage (including tail) 58 1/2 in. long, wing area is 945 sq. in. The suggested engine sizes are 35-45 two-stroke and 60-90 four-stroke. The demountable built up wing halves incorporate ailerons and flaps, two servos being needed in each wing half. A servo for each of the other functions means eight, plus, servos are needed in all and a minimum of five channel radio.

The kit comes in a reasonable size box which has an appealing colour photo on the lid. Removing this lid reveals a box stacked to the top with wood of excellent quality. Some of the sheets are die cut, which only need the slightest touch to press out, ready cut parts are packed in plastic bags. A large ali engine mount is included, as are, an ABS engine cowl, a sturdy undercarriage and a bag of fittings (nuts, bolts, screws etc). including a neat little tailwheel assembly. Wheels and tank are not part of the package.

A full size plan is clearly printed and written in Japanese, German and English with a sequential instruction sheet having black and white photographs and English translations. These instructions are sparse, but should not be a problem to those who have built a few models. There are also two A4-size photo-copied sheets with numbered plans of the die cut sheets. This is helpful as none of the wood parts are stamped with numbers.

Before building a kit I like to check the instructions and parts against the plan. In this case, because the parts are not stamped, I checked the parts against the two numbered part sheets and marked the parts accordingly. When reading through the instructions and checking the parts with the plan I found that some of these part numbers were different to the ones printed on the plan. Checking the parts against the plan during construction should eliminate the chance of mistakes and I decided to try to follow these instructions - pity I don't read Japanese! The review comments are mainly restricted to areas where modifications were made, or instructions were not too clear.

## Fuselage

The fuselage is made up mainly of die-cut Liteply parts which literally slot together. I used epoxy on most ply to ply joints and PVA for doublers and balsa planking. Before this was done I gave some thought to tank and engine installation. I decided to fit the engine, in this case an Irvine 61 Sport (there's no substitute for power) at 45° so the silencer would clear the bottom of the load bay. An 8 oz. polythene tank was fitted behind the engine bulkhead extending through F10 - masking tape around the tank was then epoxied to F10 to secure it, making it slightly easier to remove if necessary. I enlarged the

## Pilot "Load Star" all purpose workhorse reviewed by Steve Walker

hole if F8/F9 to enable the tank neck and screw cap to fit snugly inside. The throttle servo tray is also fitted in the tank bay between F10 and F11, on either side depending on the throttle position. the load box was constructed when the fuselage was completed and measured between F11 and F13 and trim sides F24 accordingly.

Numerous variations can be made depending on the use of the model.

## Tailplane and fin

First, sort out the components using the plan as a guide. The tailplane, fin and rudder are built over the plan in time-honoured fashion. Easy, aint it! Remember to let in the 3/16in. x 3/8in. spruce plate at the bottom of the rudder.

## Wings

Glue the ribs into position using the angled end of W7 as a template for the root rib. Glue into position top spars. Glue on leading-edge using scrap pieces to bring it up to the level of the ribs. Epoxy on ply spar webs W7 and W8. Note that one end of W7 and W8 is at an angle corresponding to the root rib. Clamp the webs to the spars to dry. Cut out the rib between the top and bottom spars. This forms a box into which the dihedral brace slides. Clean any surplus glue from inside the box

and glue on spar webbing. Glue in bearers W12 making sure servo tray W13 fits snugly between; trial fit servo to the tray and glue the tray in position so that the servo disc will clear the bottom planking. See the sectional drawing on the plan. Attach hatch covers W14 to spruce with small self-tapping screws. Build starboard wing in the same fashion over the plan, remembering that the root rib is at the opposite end to the first wing.

Mark the position of the aileron and flap strengthening plates to help identify them later.

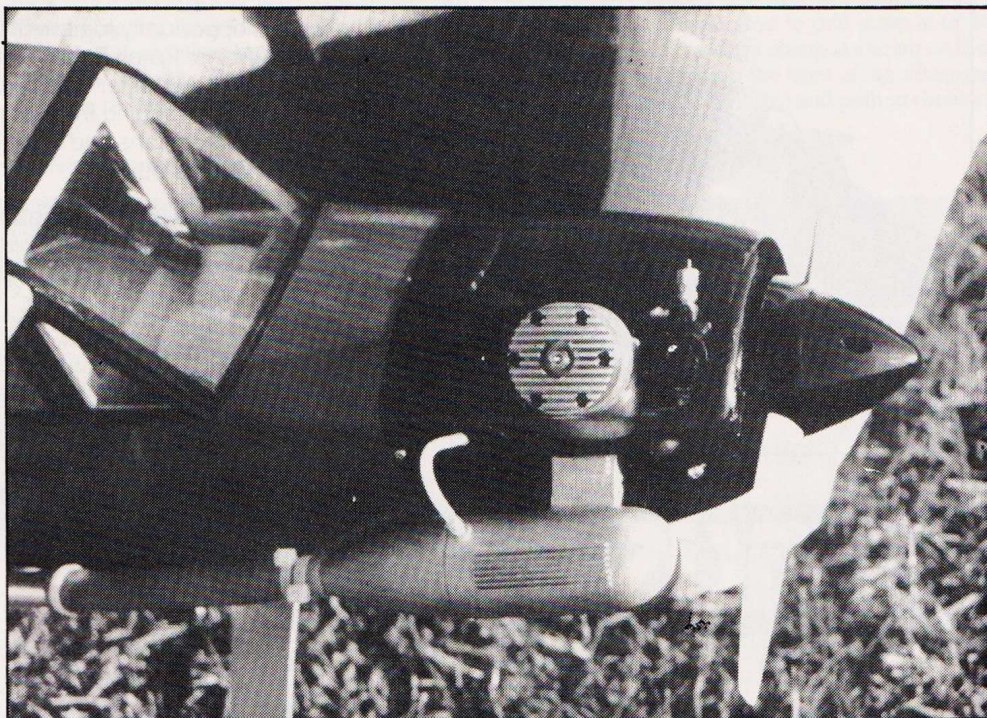
## Finishing

The whole of the review model was covered in Solarspan, metalflake silver on the wings and tail and flag blue on the fuselage. The windows and front screen were added after covering and trimmed with black Solartrim. The struts, which are functional, were made up and painted black. Servos for elevator and rudder were fitted in the trays in the tail and long extension leads made up to suit. Aileron and flap servo leads were extended and the servos fitted. The receiver was tucked in beside the fuel tank and the battery under the tank behind the engine bulkhead. Lead was added to the nose end to balance. Check the weight of the model, our model came out just below CAA weight limit of 5kg.

## Summary

I thoroughly enjoyed building the model, which is of quite straightforward construction. On reflection, perhaps a different arrangement could have been used to secure the wings and struts to the model. Self-tapping screws could become loose after numerous flights (and the heads of the crosspoint screws become burred). I was very pleased with the finished model but am surprised that decals were not included in the

*Irvine 61 was mounted at an angle to allow the silencer to exit at a convenient point for the extension.*



kit. Better instructions and numbers stamped on parts would help to cut down building time or reduce the risk of mistakes being made by the impatient. However, for an all-purpose workhorse of a model, you would find it difficult to better the "Load Star". It should be available from your local model shop for around £159.50, it is imported from Pilot Kits by Irvine Engines.

## Flying

How long it takes to assemble the model will depend on how far it has been dis-assembled for transport! With the wing panels and tail surfaces being demountable the "Load Star" packs into a conveniently small unit and can be carried in a normal family car. The bottom payload box can be adapted to carry a still or movie camera, video camera or sweets. there is also a glider carrier mount available as an optional extra.

Test flying was carried out on a pleasant early summer's evening and was without incident, the model performed well and the Irvine 60 - providing more-than-adequate power - was run at less than full RPM. All control responses were effective, very little trim correction was required, although down trim is needed when flap is applied. No doubt the flap would be useful when the model is heavily loaded, or for short field operation; for general flying the flap can be dispensed with, as the model gets away rapidly and can be brought in slowly on the approach. After the initial test flights the model was fitted with an automatic exposure/automatic wind-on



*Camera installation as devised by Steve is simple and effective, servo, attached by servo tape, is easily removed for normal use of the camera. Note large dimensions of carrier box.*

camera operated by a simple nylon line-rubber band spring/woodstrip device to depress the camera button when the servo (mounted on the rear of the camera case) was actuated. First results were virtually non-existent, due to the hole in the payload box only being large enough for the camera lens. Many cameras are not designed for specifically TTL (through the lens) metering and, therefore, the viewfinder must also be exposed. The second reel of film to be put through the camera, which was mounted

facing vertically down, showed considerable improvements and we will be experimenting further with oblique angles of camera mounting.

Although the suggested "35 to 45" two-stroke engines would be adequate for lightly-loaded models, it is an advantage to have more-powerful motors when you intend to use the "Load Star" for a variety of purposes. There will be times when the extra performance may be able to get you out of trouble.