



Haiifa

John Doerr samples not a fruit, but an .049 powered trainer from Israel

Banana

The imaginatively named 'Banana' is a two channel high wing trainer that spans around 39 inches and hails from Israel. Available from 'Hobby Stores', the Banana can be purchased on its own, or as a package for £99, comprising the Banana kit, a Cox engine, two channel radio, prop, covering and glue. Pretty fair value, I reckon.

Aimed at the novice who is perhaps operating on a low budget and wishes to start with something small and simple, and with a quoted build time of only 12 hours, it should satisfy the eager newcomer to the hobby. Although an optional aileron wing exists, the review model has rudder and elevator only.

The kit is designed around engines that operate with a separate fuel tank, however, the Cox .049 that I had available has a small integral fuel tank, which doesn't preclude its use, but does make for shorter duration flights.

Unzip a Banana

Who remembers that old advertising slogan?

The colourful box is adorned with photographs of the plane, both during and after construction, and once opened reveals its contents of ply, balsa and hardware, all neatly bagged and labelled. Horns, hinges, wheels and an aluminium undercarriage are all included. A small fuel tank,

however, is not. A good plan and very comprehensive 44 page manual (in English) completes the package. The manual is worthy of extra comment, for not only does it detail the construction of the model, it also devotes three pages to the application of heat shrink film and six pages to flying instruction. Pretty impressive.

One of the photos on the box shows a group of youngsters, each with one of these planes. It begs the question that do they collectively constitute a squadron - or a bunch - of bananas?

Bits and pieces

First on the building board is the fuselage. Nothing radical here, just two solid sides with balsa doublers around the radio bay, joined by five formers, and capped with balsa and thin ply sheeting. The sheet balsa sides are well cut and have the former positions marked on them. The manual advocates the dry assembly technique of building whereby the component parts are fitted together, held in a jig and then have a bead of glue run around all the joints. This method necessitates the use of a glue that has good creep qualities and deep penetration. I used Deluxe Materials 'Super Phatic' for building most of this

kit. Don't worry if you haven't got a professional jig, as simple wooden jigs to aid fuselage assembly are provided.

Two discrepancies showed themselves at this point. First, one of the formers is not shown on the plan, although it is marked on the fuselage



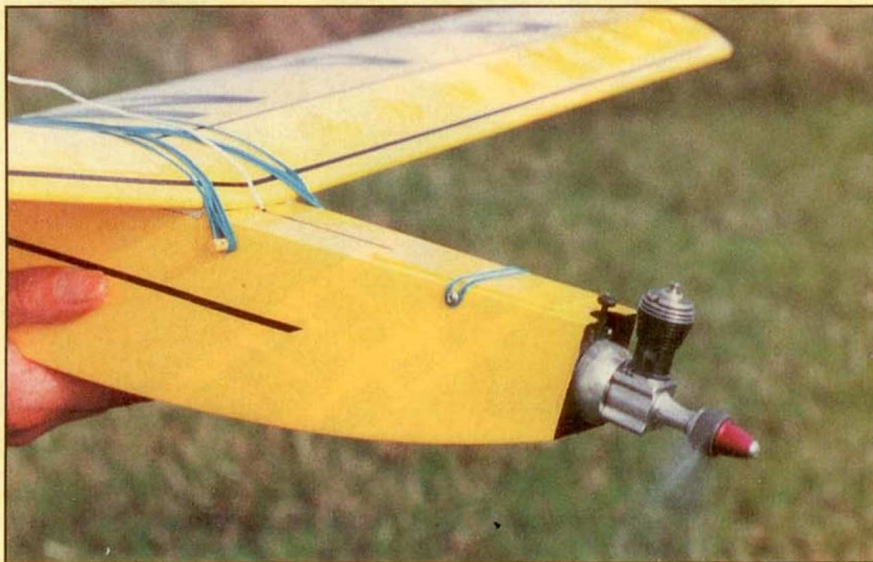
Above: Unzip a Banana and have some small model fun.

sides and is mentioned in the manual. Second, the pushrod arrangement is different from that detailed on the plan, which shows wooden pushrods with wire ends. In reality the pushrods are all wire and they run down the fuselage, through tiny guide holes in formers F4 and F5. The instructions require that these wire pushrods be fitted before the top and bottom sheeting is glued in place. However, if you subsequently remove the pushrods (deliberately or otherwise) then you would never be able to feed them back in through their guide holes. As I didn't feel happy about this arrangement, I chose to glue a length of Sullivan snake 'inner' between former F4 and F5, thereby allowing me to insert or remove the pushrods at any time.

The dorsal fin, main fin and rudder are from 3 mm balsa sheet, as are the tailplane and elevator, each with their hinge slots pre-cut. After gluing on and checking for squareness, I could quickly see my Banana taking shape.

I have nothing but praise for the accuracy of the cut parts in this kit, the wings being no exception. The pre-shaped leading edge and all the ribs were perfect, with not so much as a whisker needing to be removed.

As with the fuselage, the wings are built using the dry assembly method, with the parts being pinned down over the plan and glue run along all joints. The spars were a snug fit on every rib and no problems were encountered with the wings at all. When the two wing halves were finished they were joined using the small ply dihedral brace and the remaining centre section sheeting was fitted. The substantial triangular wing tips give a very pleasing final appearance to the flat bottomed wing, whilst the twin main spars, with their associated webbing, make for a pretty strong structure.



Motive power is supplied using one of the excellent range of Cox glow motors. John opted for an .049, with integral tank.

This high quality kit of parts is available from Hobby Stores for £34.95. If you're starting from scratch, they are selling the kit, Cox engine, two channel Futaba R/C, glue and covering for just £99.

Banana skin!

At this point the instructions suggest that, after sanding, the fuselage is given five or six coats of dope and left like that, with just the wing being covered with Solarfilm. However, as a matter of preference, I decided to use Solarfilm all over. No prizes for guessing that with a name like 'Banana', it had to be yellow, with black tips and trim, although I would advise a novice to perhaps choose a colour scheme that better aids orientation when flying.

The fuselage has ample room for normal gear and I used two Hitec standard servos, fitted to the supplied rails. A 600 mAh nicad found its home up front in the empty tank bay and a Micron mini receiver assumed responsibility for the avionics.

The wire pushrods are designed to fit to the servo horns with EZ connectors, which are not supplied, and which I did not possess. These connectors allow screw adjustment of the neutral control surface positions. No panic; I fabricated something similar which I present now as a free

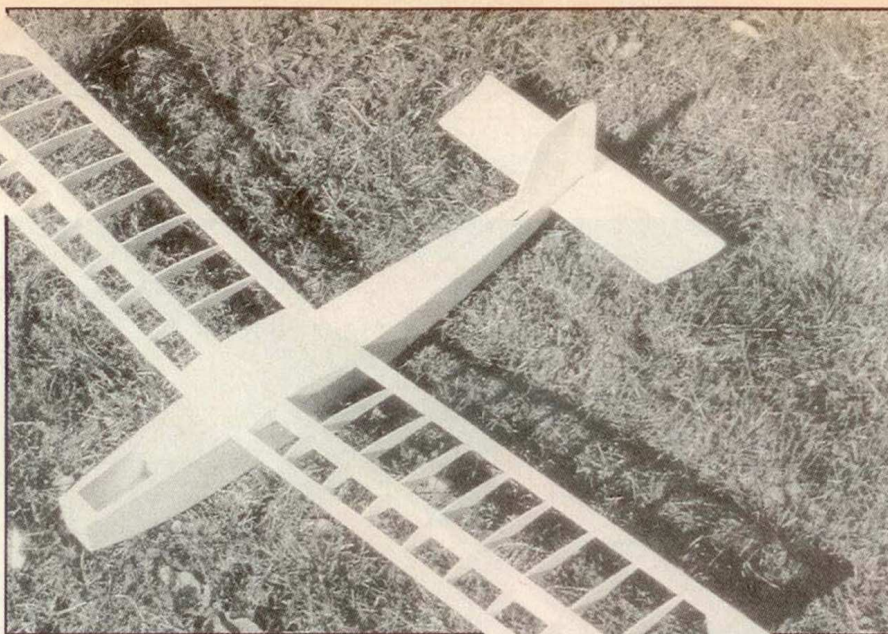
"hint and tip". Each wire pushrod is cut just behind the servo and rejoined by overlapping the cut ends through a connector prised from an electrical terminal strip. With both ends of the pushrod bent to engage in their respective horns, the pushrod length can now be altered by slackening the connector screws and adjusting the rod as required. The screws are locked in position with a tiny blob of cyano or threadlock of some sort and small pieces of fuel tube keep the ends tidy.

Banana Sundae

....For Sunday was the day that the plane first took to the air! With that mixture of fear and excitement which always accompanies a first flight, and



Simple to build airframe is assembled 'dry' and glue run into the joints afterwards. Works well due to excellent fit of parts.



Below right: Cutting the wire pushrods as shown and securing with electrical connectors provides a quick and easy way of altering the trim.

with the obligatory range check done, the Banana was launched into the gentle westerly breeze. It climbed out at a steady pace, straight as a die, leaving me feeling somewhat redundant as I didn't need to touch a thing on the transmitter - that is until I decided that I ought to get it back! Simple figure of eights in front of me revealed very steady and

untroubled flight characteristics.

That first flight was over all too quickly and as the engine died of fuel starvation, I wondered what the transition to gliding flight would be like. Uneventful sums it up. The engine downthrust must be spot on, as no pitch change was detectable. Control authority in the glide is good and the Banana greased in for a perfect landing at my feet. About a dozen more flights followed, each one confirming that the designer has got it about right.

Progressively feeding in 'up elevator' under full power sees the model fighting to resist the stall, which it does admirably, eventually just wallowing around the sky as if drunk. Smooth, tight loops are executed from straight and level flight, but large loops need a bit more initial speed by starting from a shallow dive. Large barrel rolls are also in the Banana's repertoire and jolly nice they look too.

Every landing was a cracker (if I do say so myself), as the model gently kissed the ground after floating in beautifully on the final approach.

Banana split - the conclusion

With the engine 'on song', the Banana is an agile little flyer and yet at the same time it possesses a sort of docile predictability. It goes where you point it, with no obvious vices, and should easily inspire confidence in the novice aeronaut. The manual advises against flying in wind strengths over about 10 mph and I feel inclined to endorse this as the review model tips the scales at only 1lb 5ozs.

The kit quality, I cannot fault, with all the pre-cut parts being very accurately produced.

Apart from the minor observations made earlier about the missing former on the plan and the need for pushrod guides within the fuselage, then this kit certainly gets my 'seal of approval'. If you don't mind your street credibility taking a knock when you own up to flying a 'Banana', then this could be the one for you. Be aware though that whilst it does all the things a trainer should do, it is small and has no throttle control, both of which might be disconcerting to the novice, although having an instructor on hand should allay any fears.

And remember, if you do fly a Banana and subsequently break it, then spares should be readily obtainable at all good supermarkets and greengrocers!

Happy flying. ●

DATAFILE

Kit specifications

Name	Banana
Aircraft Type	Small model trainer
Manufactured by	Tissan Haifa, Israel
Available from	HobbyStores - see advert for various addresses and phone numbers
Recommended Retail Price.....	£34.95
Wing Span	39"
Wing Chord	6.3"
Fuselage Length	26"
Engine049 cu. in.
Rec. Number of Channels.....	2 - 3
Control Functions	Rudder, elevator, optional aileron
C.G. (from L.E.)	1.9"
Elevator Throws	+/- 5 mm novice, 10 mm expert
Rudder Throws	+/- 10 mm novice, 20 mm expert
Sidethrust	5 degrees right
Downthrust	7 degrees

Materials used in construction

Fuselage	Balsa, ply
Wing	Balsa
Tail	Balsa sheet
Radio	Futaba Tx, Micron Rx, Hitec servos
Engine	Cox .049
Weight, ready to fly	1lb 5ozs

