

Snippets. DUX Aero Sets A number of items of interest have been seen on Ebay since the notes in 10/248 & 12/330. All but 3 of those to be discussed are included in a list of sets in a Copyright 1933 manual kindly sent by Jacques Pitrat. The exceptions are Sets 50, 106d, & 110, and so these would have been introduced later. Also included in the List, the Kreisel-motor (Flywheel Motor), see OSN 12.

Set 50. The set right was said to be pre-WW2 and its number has been presumed from the lid. It has simpler and no doubt smaller parts than in the standard sets 104-110 – a concept akin to Meccano's Nos.0 & 00 & the MECAVION Baby sets described in 40/1200. The basic Fuselage seems to be in one-piece with a bent down tab at the front to take the Propeller. In the Sketch 3 of the assembly instructions inside the lid (Fig.2) there looks to be a part filling the underside of the Fuselage between the Wings. If so it would stiffen the wing/fuselage joint, useful even for the Biplane since no interplane struts are shown. Other parts (see Fig.3) are a symmetrically tapered Wing with flanged root, right-angled Undercarriage Legs to give an unusually wide track, & the Fin with the tail wheel attached to the bottom of it. The Tailplane is probably largely hidden by the packet under the nose of the Fuselage. The 4 parts under the tip of the top left Wing may

be the Struts used to support the parasol wing in Sketch IV.



FIG.1



FIG.3

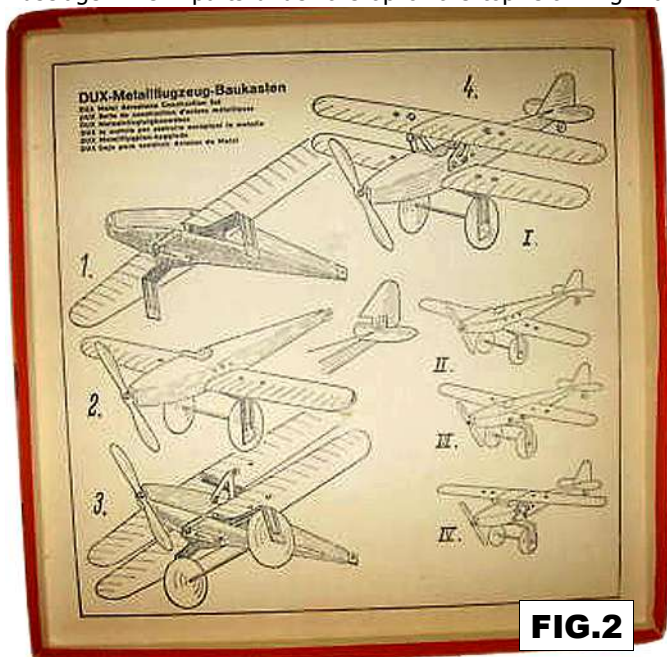


FIG.2

Set 104 with, possibly, an Electric Motor

Nr.104 is the smallest 'standard' DUX outfit, and has parts to make only monoplanes with a wheeled undercarriage. Unlike the larger sets the fuselage parts are arranged diagonally in the box. Right the Ebay set with the Electric Motor sitting on top of some of the fuselage side panels – otherwise the parts look identical to those in a standard set. (apart from the extra, unstrung 'Pulley' below the Screwdriver).

I wonder though if the Motor was actually part of the Set. First, the lid has just the 'DUX 104' legend of the 'standard' set with no indication that it is unusual in having a Motor. Secondly, the stringing, though correctly positioned, looks untidy, and the Wire Hanger on top of the Fin (to be attached to the top of the model to hang it up by) is not there in the several other strung sets seen. Thirdly, the Motor looks deeper than the sides of the base (though the lid aprons can't be seen in the Ebay photo).

If the Motor is genuine how & where it is mounted in the model isn't clear – it looks too deep to be situated anywhere

other than in the deepest part of the fuselage, and if it is then its shaft, despite being longer than usual, would need a considerable extension to reach the nose.

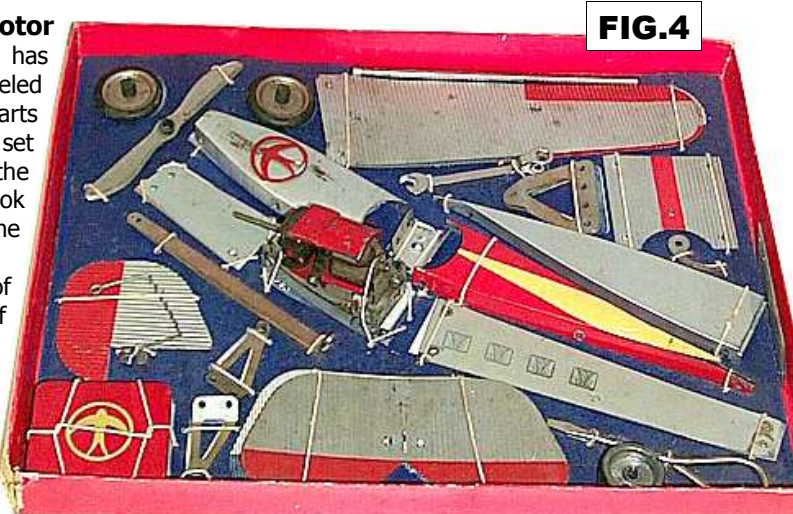


FIG.4

Set 106 Compared with Set 104 the main extra parts are a Radial Engine; & a Centre Plate to complete the underside of the fuselage. The main change though is that the Wings, Tailplane, & Fin have moveable ailerons, elevators & rudder.

Set 106a This converts the 106 into Set 108 (the latter shown in Fig.11) and the main additional parts are 4 parallel chord Wings; Floats; & the blue Z-Interplane Struts.

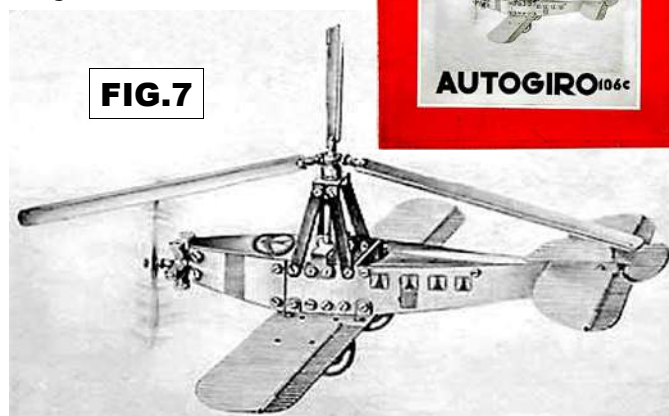
Set 106b Elektro Figs.5 & 6 below show the lid and parts from this add-on outfit. It includes an Electric Motor to drive the Propeller, and wing tip lights. The main parts are the Motor; Battery Container; red & blue Bulbs plus Bulb Holders;



a replacement Nose; replacement Nose & Rear Underside Fuselage Plates (with extra holes to mount the Motor & Battery Container); and a Propeller. The glass of the blue Bulb looks a little different to the red one and since one might expect a green Bulb as mate for the red, perhaps it is not original. Other parts, below the Nose Underside Plate, are 3 probable Switches, and an Extension Shaft to link the Motor & Propeller.

Set 106c Autogiro Another add-on set to convert the basic 106 machine into an Autogiro. Many of the parts in the box (Fig.8) can be seen in the model on the lid label (Fig.7, with the whole lid inset). They include the 4 black Struts to support the flanged Top Bearing Bracket for the rotor; a DAS-type Lower Bearing Bracket; and the 3 Rotor Blades. There is no sign of the Rotor Hub so it may be missing or in the small parts box. The 1933 manual says that the rotor runs on ball bearings. Other parts in the Set are the short Wings with moveable ailerons, and a shorter Fin with hinged rudder, necessary presumably to accommodate the droop of the

Blades. It would be nice to think that the rotor would autorotate when the model's owner ran along with it.



Set 106d Steuerwerk (Steering gear) It appears from the lid label below that the rudder & ailerons can be moved from the rudder pedals (a horizontal pivoted lever) & control column (joystick) in the cockpit, but that the elevators must be moved by hand, which seems rather a pity. With the control runs shown the only other type of model possible would be a Low Wing Monoplane. The parts with modified control surfaces (see Fig.10 overleaf) are a pair of parallel chord Wings; a pair of Tapered Wings; & a Fin. (Since Set 106 has no parallel chord Wings the other parts needed to build the Biplane on the lid



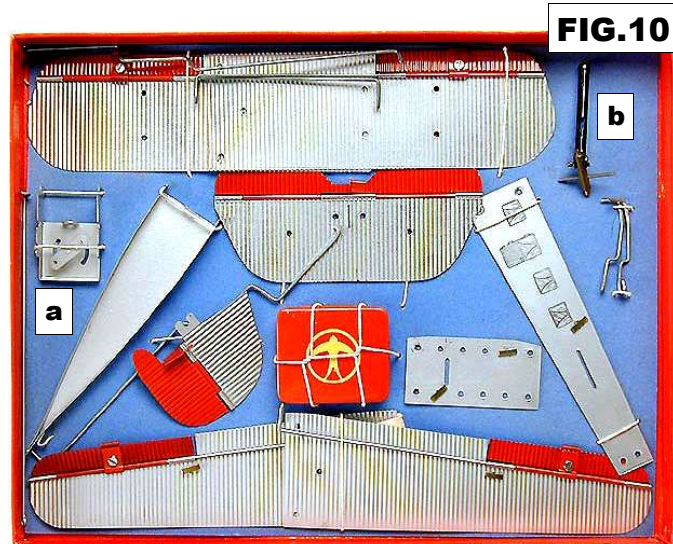


FIG.10

Interplane Struts, and the Wire Links to connect each pair of upper & lower ailerons. All these parts were in the linking set 106a but none can be seen in the 106d. Perhaps they are under other parts, or was a Set 106a also needed to build the model on the lid? If so only a Low Wing Monoplane would be possible with Sets 106+106d.) A Tailplane is also included in the Set but apart from having 2 extra holes, it looks identical to the one in Sets 106 & 108. Other main parts are a Rear Underside Plate; Rear & Centre Side Fuselage Plates, slotted for the Control Rods; & a Mounting Plate (at 'a'), which possibly replaces the Centre Underside Plate, to carry the Joystick & Rudder Pedals. The Mounting Plate has a double arm crank pivoted to it (it can just be seen at 'a') as rudder pedals, and looks to have lugs fore & aft to carry the brass fitting at the bottom of the Joystick (see 'b'). Each end of the brass fitting's small diameter cross rod probably engages with the right-angled end (U-shaped, see Fig.9) of a long Aileron Actuating Rod, and so the ailerons rotate when the Joystick is moved sideways, and in the correct sense, one up & one down.

would be a pair of unmodified parallel chord Wings, the Z-

Sets 108, 110, & a C/W Motor

The main characteristics of **Set 108** have already been mentioned and the photo right is included merely as a reference to the standard parts in the system. The Set's lid, below, is the pattern used for all the sets seen except 106b, c, & d, although in a few



FIG.12

cases there is no set number, and some sets have different models in the circle.

Set 110 is referred to in the manuals seen for lesser sets but with no details. However the Set did have the 106d Steuerwerk parts because the Ebay 106d lot included a photo of a manual headed 'DUX - Metallflugzeug - Baukasten 110', and it included an illustration of the Biplane on the 106d lid fitted with the Steuerwerk parts and entitled 'Metall-Flugzeug mit Steuerwerk'. Beyond that it is conceivable that the 110 also contained some or all of the new parts in the Set 109 described below.

The Motor, right, includes a contrate drive to a pinion on a special Axle. Just visible above it in the photo is its red box, and on it in 7 languages is, in the English version, 'Clockwork Motor for Aeroplanes'.

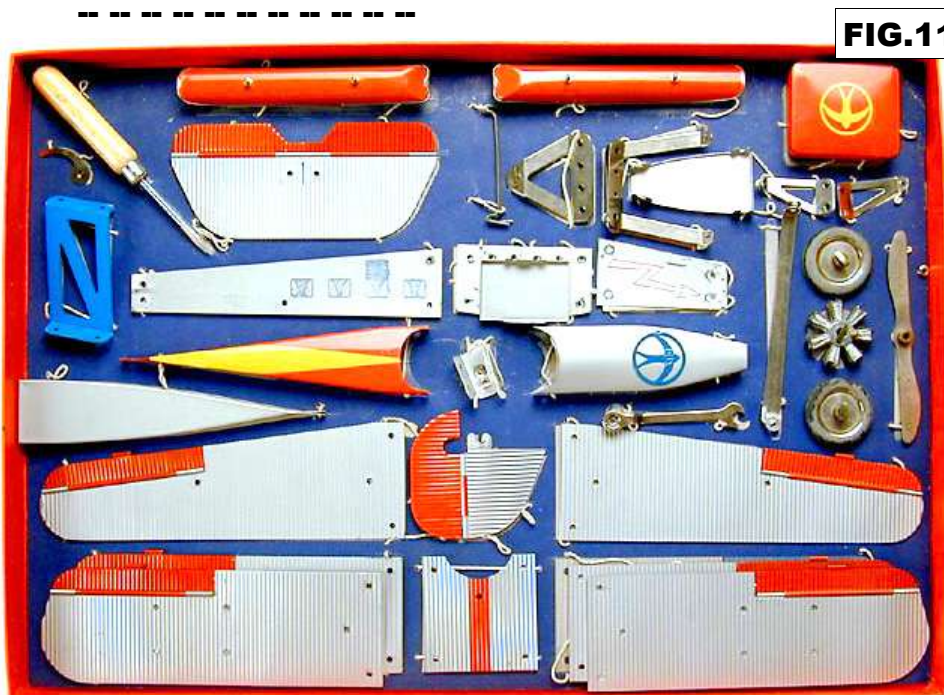


FIG.11



FIG.13

Set 109 Flugboot Right the only, very poor, photo available of this outfit. The 1933 manual says that it is a set to make the Dornier Do.X & various other Flying Boats. A model almost certainly made from the parts is shown in Figs.15-17, and it is the featured model in the circle on the box lid. With a little imagination many of the parts can be seen in the box. The standard parts are probably the top of the fuselage, apart from the red cabin, the Wings outboard of a short Centre Section above the cabin (apart from some extra holes and being one hole longer because the root flange is left unmade), and the Tailplane. The Fin itself looks similar but the rudder has been extended downwards and a new Short Fin section added under the tailplane. The new parts are the one piece Fuselage



FIG.14

Snippets. More on DUX Aero Sets To start with, when did the various sets appear? What follows is from lists of sets in several manuals, leaflets, etc that have dates in their PRs.

Sets 104, 106, 106a, & 108 were shown in a Nov 1932 manual (the year the Aero sets were introduced) together with the Flywheel Motor (Kreiselmotor). See 10/248 for notes on the Sets & 12/330 for the Motor.

From a Sept 1933 brochure the items added were Sets 106b (Elektro), 106c (Autogiro), 109 (Flying Boat), & the C/W Motor (Federmotor). See 42/1270-2 for notes on all these.

From another, Aug 1935, brochure, the new sets were Nos. 102, 103, 110, & 106d. 102 & 103 were for smaller 32cm span, models. The 102 looks to be the same as the Nr.50 in 42/1269 except that the 102 on its lid replaces 50. The 103 (Figs.1 & 2) has parts for either of the models on the lid. The Seaplane floats on its oversize Floats & it taxis along thanks to a C/W Motor driving an oversize Prop. The land-plane has the same Prop and presumably can also taxi along.

Fig.1

Models for the 110 are similar to the 108's but include movement of all the control surfaces (ailerons, elevators, rudder) from the 'joystick' & rudder in the cockpit. The linkages are wire rods preformed to suit. Google translates part of the description of the 110 as 'The Dux 110 was built on behalf of the Ministry of Culture'. Set 106d adds the 110 control functions to the 108 models (the joystick does move the elevators, not as stated in 42/1270).

Fig.2

The sets listed in a June 1938 manual are: 102, 103, 104, 106, 108, 110, 106a, 106d, & C/W Motor. Thus the 109, 106b, 106c, & Flywheel Motor seem to have been dropped. In an August 1939 manual the 102, 103, & 106d have also gone. It would be good to confirm these changes from a brochure, etc.

OTHER SETS Figs.3-6 are from two 90L sets offered on Ebay recently. The Set has parts for the single-engined model on the lid (Fig.3) with the set number, 90L, at top right. The model though has just DUX-90 on the sides of the fuselage & wings. It's not clear how the sides of the fuselage & fin, and the upper & lower surfaces of the wings & tailplane are held together. No doubt the 20 M2.6, 3mm long countersunk Screws, & 8 hexagon M2 Nuts that are in the Set are used but perhaps some of the parts just push or clip together. All the control surfaces are hinged and can be moved by hand. A C/W Motor drives the prop & landing wheels.

The twin-engined model on the lid has DUX-92 on the fuselage but nothing else is known of it.

When did the 90L (& perhaps the 92) appear? If after 1939 one might have expected that at least the 'Me.109' would be in



Fig.3



Fig.4

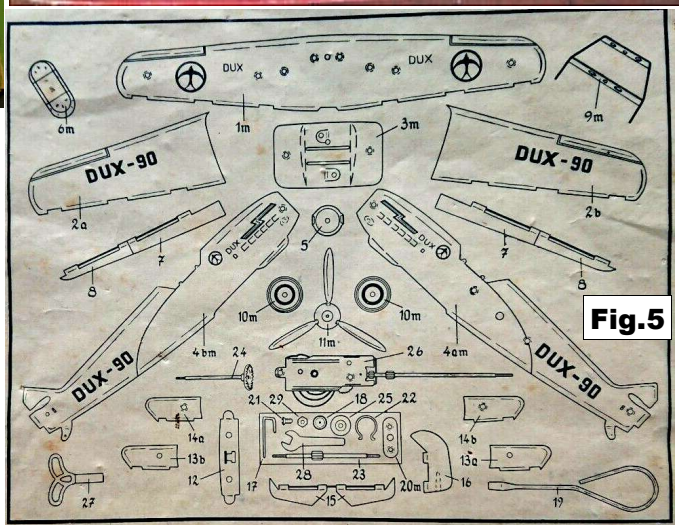


Fig.5

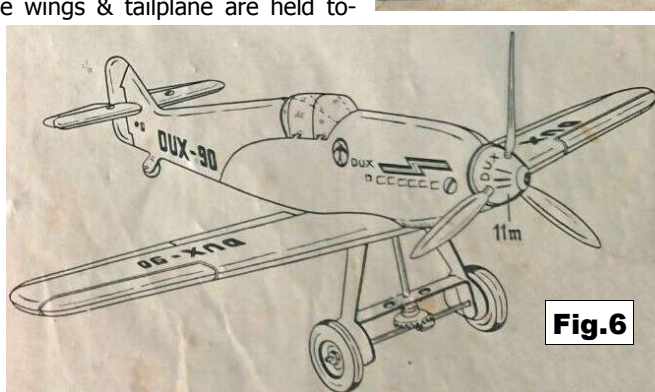


Fig.6



Fig.7

military colours. A set to make a realistic Ju 87 in military livery was produced at some stage. Fig.7 shows the model leaflet.