

AIRMARK CASSUTT

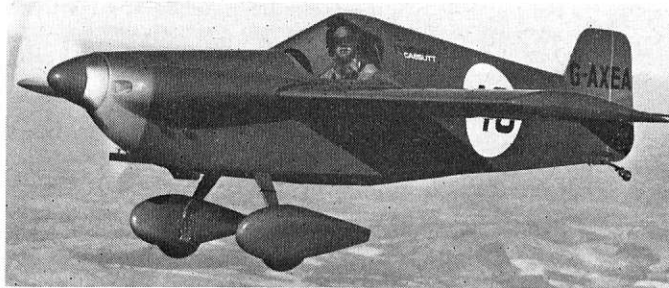
described and drawn
by A. A. P. Lloyd



MOST OF US acknowledge the American midjet racer as a small device; but the experience of looking at a 48 inch span tail assembly comes as a sobering moment for the most blasé among enthusiasts. This is only one aspect of a fascinating aircraft and one which is admirably suited to modelling.

The Cassutt special was designed some while back in the middle fifties by airline pilot Captain Tom Cassutt as a 'Goodyear' type Formula 1 racing plane.

Success came both in the racing, and perhaps more so with the popularity of the design with American



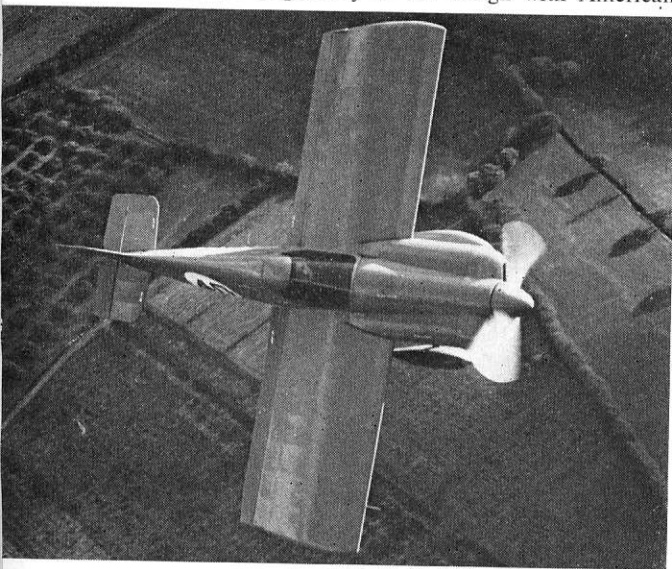
Flying shots by 'Air Portraits' emphasise the squat, purposeful shape of the Cassutt and its attraction for model-making. The aircraft is so small in fact, that this is the first time we have ever managed to publish a 1/36th scale 3-view on a page plan. (The original drawing is one inch to the foot!)

Indeed, one may purchase the completed aircraft from Airmark or, as circumstances permit, purchase one or more of four kits to supply the basic bones of a Cassutt. Alternatively, on purchase of a set of D-I-Y plans, one will be faced with the interesting choice of two derivatives, the IIM or IIIM.

We have drawn the IIIM. Basically the IIM is a lighter Cassutt with a 'thin' 6% chord/thickness ratio wing, and a fuselage 18½ inches wide. Definitely a racer, this one, though only with a convenient sized pilot.

The alternate IIIM has a 'thick' 11 per cent chord/thickness ratio wing. The modified NACA 23006 section is known as Cassutt 1107, and supports a 22 in. wide fuselage. Both aircraft will accept most 85-90 hp engines, but in particular the R.R. Continental C-85 or C-90. This motor gives the ideal combination

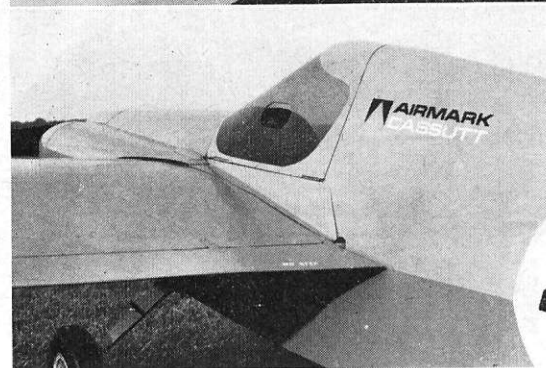
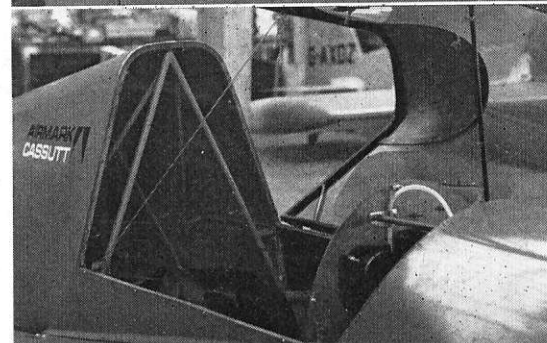
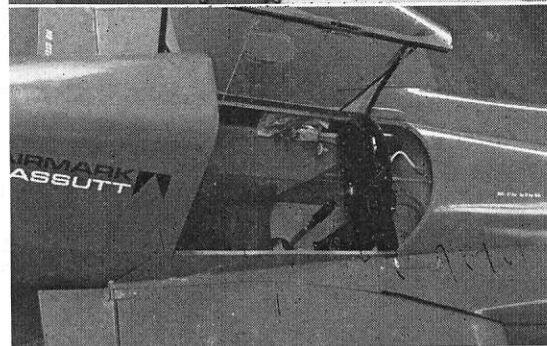
Number 40, G-AXEA is deep red overall, with black registration, and white disc background for the racing number. (All photographs on this page by Air Portraits.)



home-builders. Fortunately for them, weather conditions are perhaps more favourable for both flying and building one's own aircraft in the South West United States. Most home builds don't have de-icing and this can be a problem even at modest altitudes in the United Kingdom during winter.

In spite of this, Airmark Ltd., a company based at Redhill, and run by Tom Storey, whom aerophiles will know for his TSR-3 'Wonderplane' G-AWIV, have undertaken to bring the Cassutt to England.





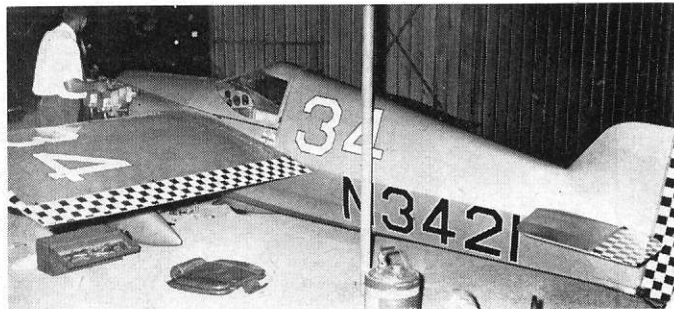
indeed as well as a racer to Formula I the Airmark Cassutt is no slouch at aerobatics—though not yet fitted for prolonged inverted running.

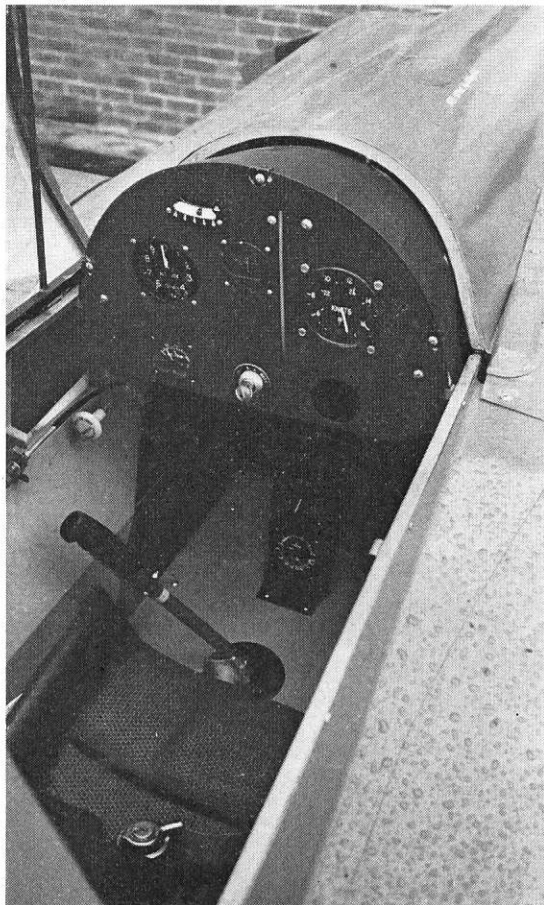
The airframe is basically a steel tube space frame fuselage with integral fin. Similarly, the ailerons, stabiliser, rudder and elevators are tube outlines, fabric covered. A claimed stressing of plus or minus 12g reveals what a sturdy frame it is. The area of the cockpit is skinned inside and out with aluminium, and a sheet metal spine decking rounds off the sharp apex of the fuselage behind the cockpit. Cowlings, etc., are metal or fibreglass, according to ease of shaping. Any aeromodeller would be at home with the wing; a constant chord, 18 built up ribs, spruce laminated main spar, with solid leading edge and rear spar, which construction gives a simple rugged ply-skinner unit, cut out at the centre-section to clear the fuselage.

The spring steel landing gear is equipped with independent disc brakes and like the wing and tailplane bolts simply to the main fuselage crutch. Entire airframe is covered with fabric, cemented to the

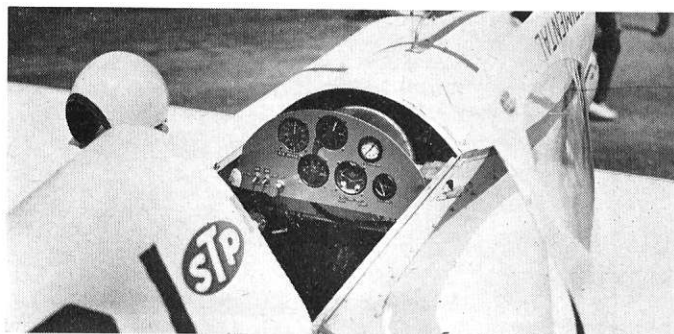
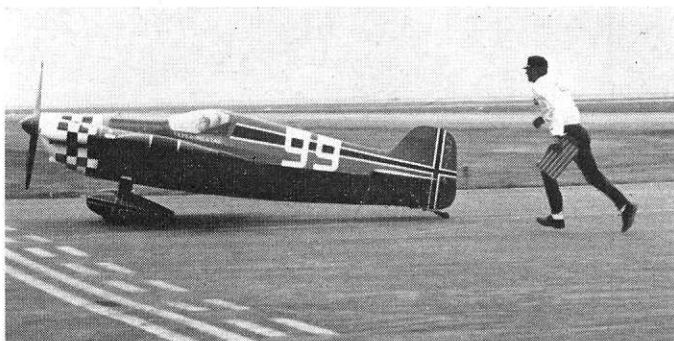
Above left, close-up details of Tom Storey's own Cassutt which has the Tiger Club badge on the fin and rudder, and at right, the second Cassutt. One has to see the size of the tail 'in the flesh' to believe it! Below is an American Racer in lavender mist finish with chequered control surfaces.

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Above, the cockpit of Tom Storey's Cassutt, with car seat fitment to add comfort in an uncluttered arrangement (Air Portraits photo). At right, Cassutt Racers in the U.S.A., at top the red, white and black 'Erie Scarab' number 99, next is Jim Clement's Mk.II in red and white finish, racing number 55. The cockpit is from the 'Boo Ray' Number 81 as at bottom showing its modified square cut tail surfaces. The most successful of all racing Cassutts, 'Boo' is owned and flown by Marion Baker. (Russell Brown photos).



tubular frame direct, and finished normally by first tautening and then colouring to choice.

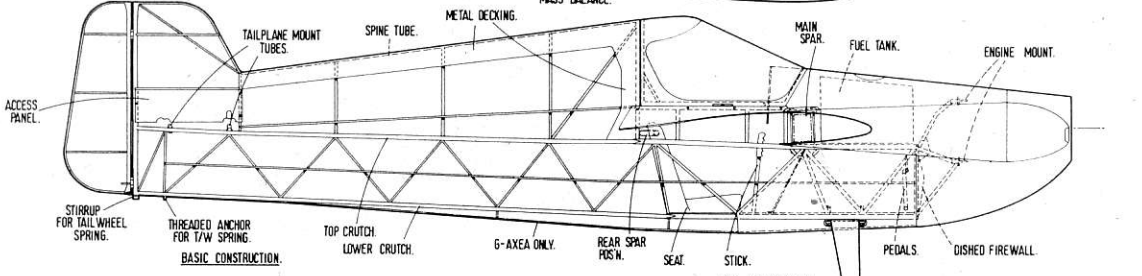
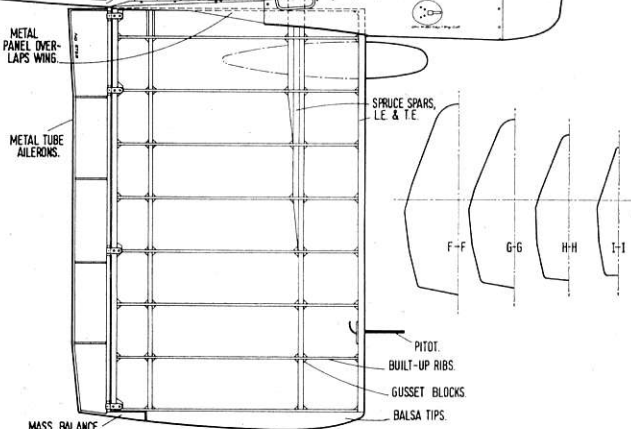
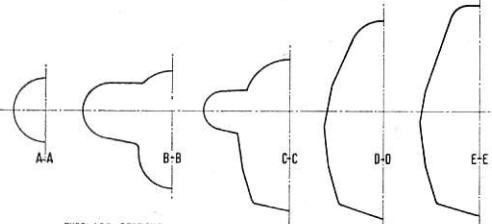
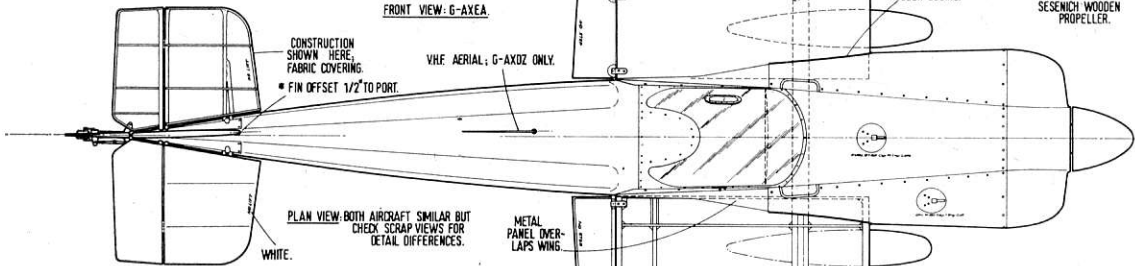
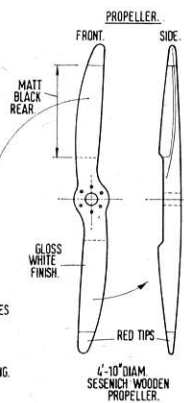
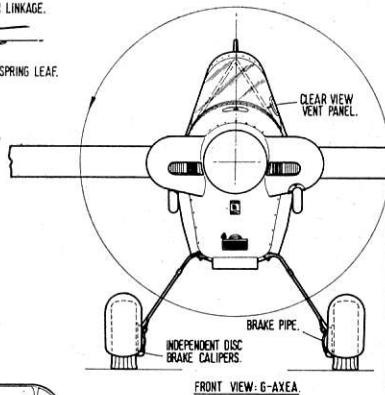
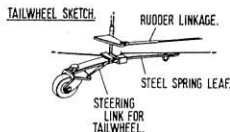
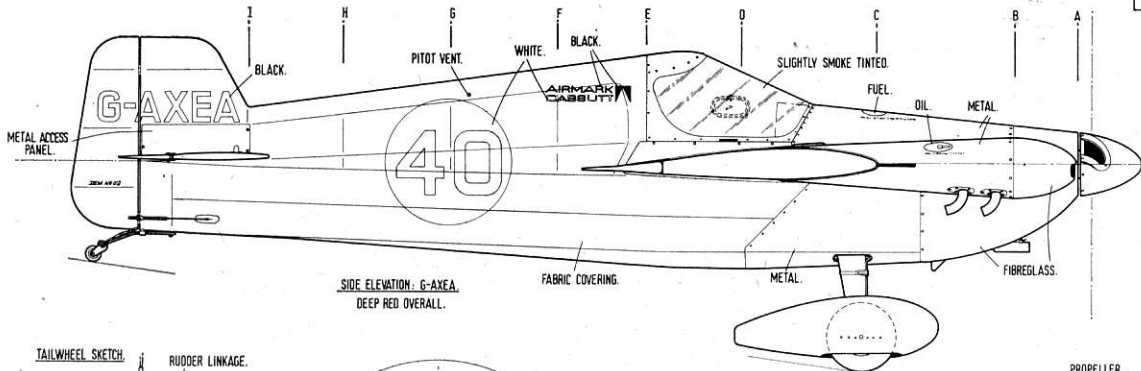
Tom Storey's own Cassutt G-AXDZ has been modified to allow the wing complete with ailerons to be easily removed for transporting on a trailer when necessary. This is simple enough but requires Balsa fairings attached to the wing top and bottom surfaces.

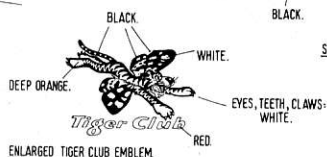
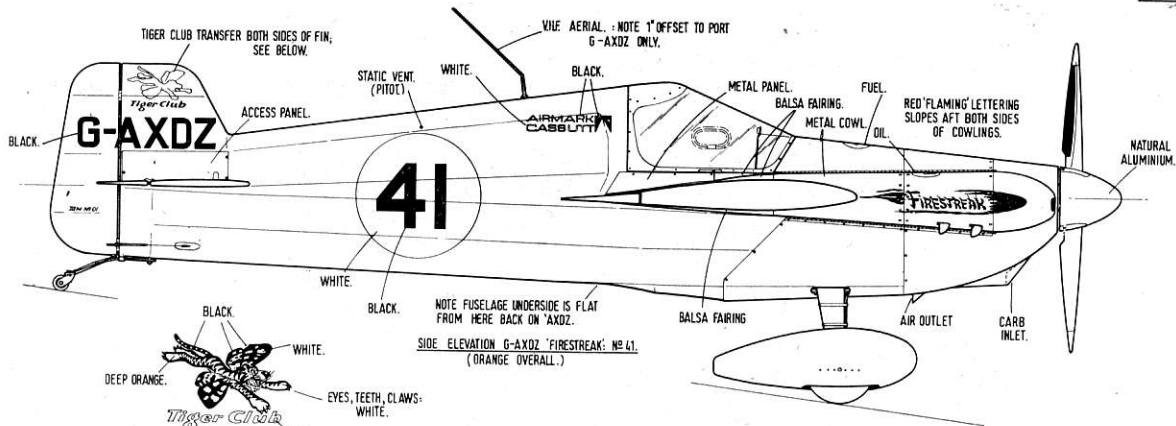
Some of the aircraft constructed in the U.S.A. have narrow ailerons, or part span ailerons, these, together with canopy and cowling shapes, are obvious external differences, and are not laid down to any pattern of the designer. The cockpit height is given as 'pilot's eye level plus six inches' - this shows but one of the flexible dimensions which must make each and every Cassutt a neat, sleek individual.

If you are in London in early August, you may even find one in Harrods. No, we're not kidding!

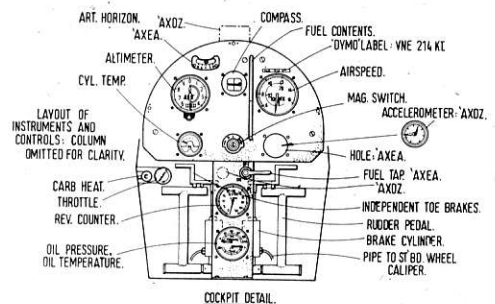
The author is particularly indebted to Tom Storey and the facilities afforded by him to produce this feature.



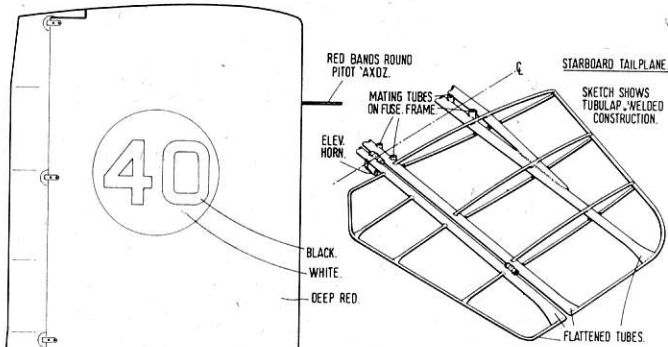




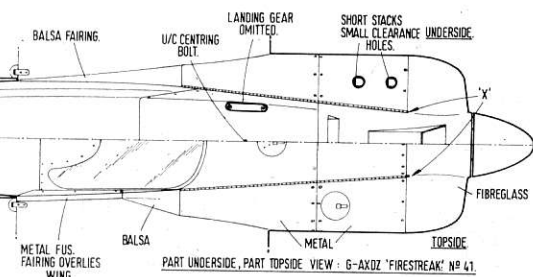
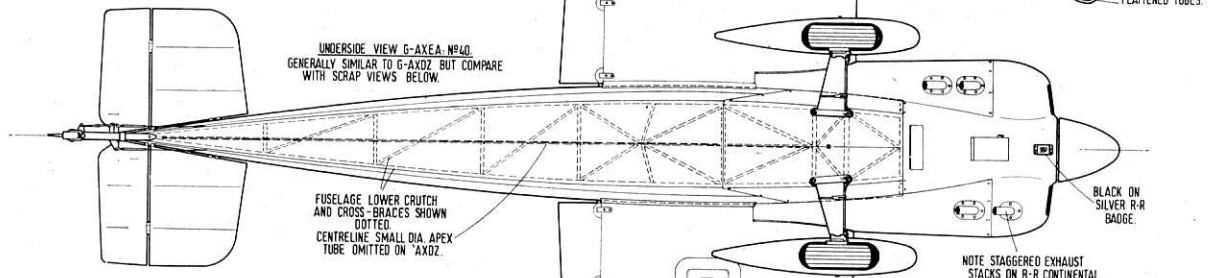
SIDE ELEVATION G-AXDZ 'FIRESTREAK' № 41. (ORANGE OVERALL.)



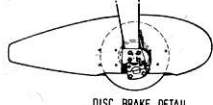
COCKPIT DETAIL



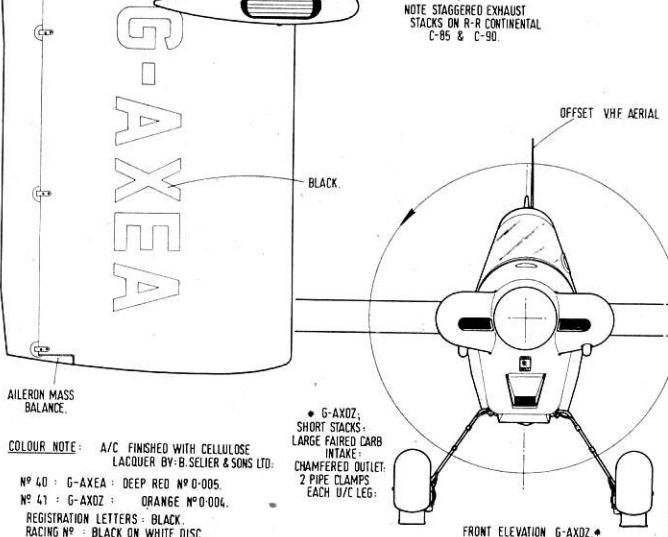
UNDERSIDE VIEW G-AXEA № 40. GENERALLY SIMILAR TO G-AXDZ BUT COMPARE WITH SCRAP VIEWS BELOW.



'X' ARE FOUR QUICKLY DETACHABLE PINS WHICH ENABLE ENTIRE METAL COWL PANELS TO BE REMOVED.



INNER SIDE; PORT WHEEL, BOTH AIRCRAFT.



• G-AXDZ : SHORT STACKS - LARGE FAIRED CARB INTAKE - CHAMFERED OUTLET - 2 PIPE CLAMPS EACH U/C LEG:

FRONT ELEVATION G-AXDZ •