

SKYLEADA Y-F 100 SUPER SABRE

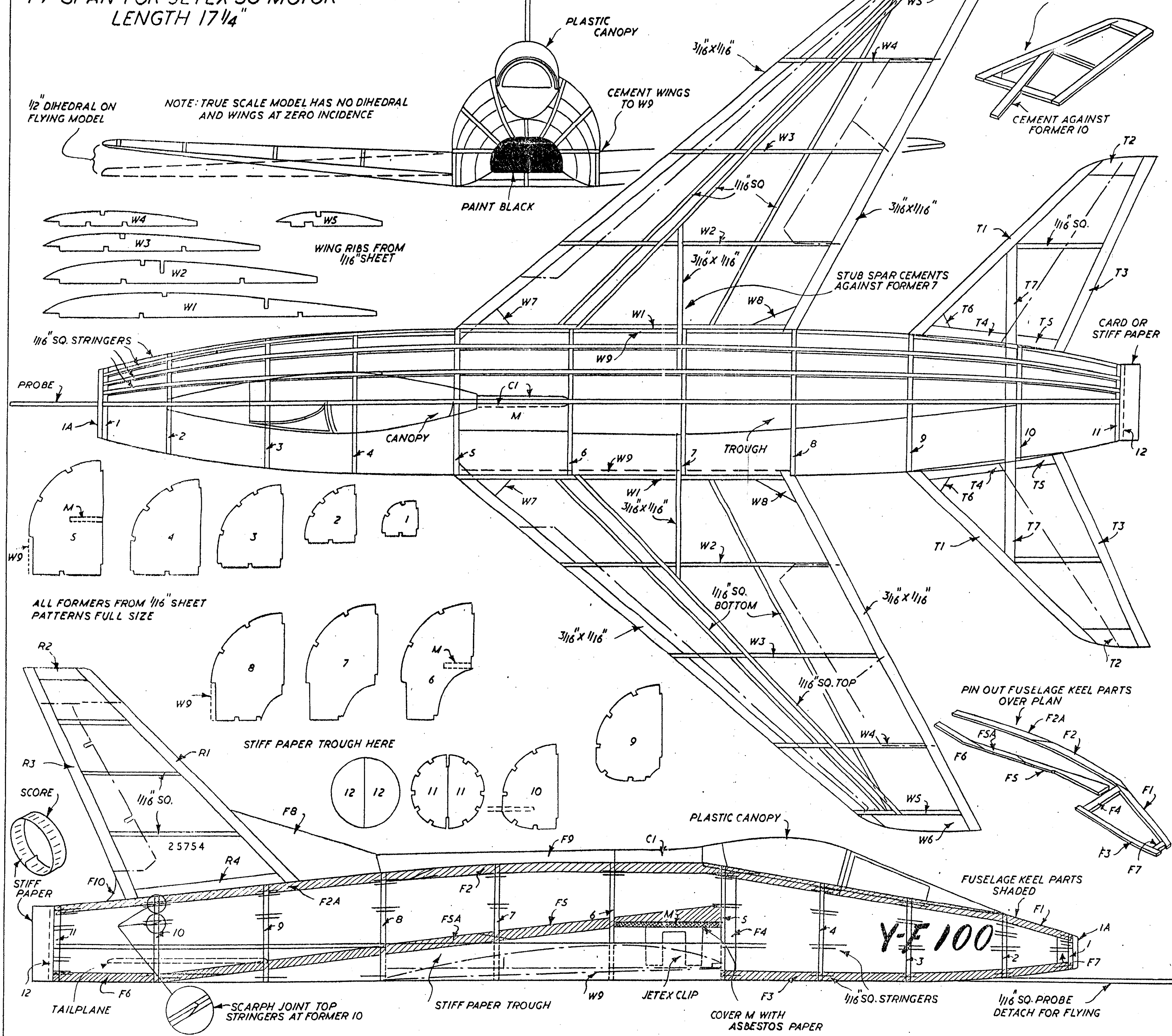
14" SPAN FOR JETEX 50 MOTOR
LENGTH 17 1/4"

BRITISH MODEL AIRCRAFT MFG. CO. LTD.
MITCHAM, SURREY, ENGLAND

Skyleada

Jetex 50 Series

Y-F 100 SUPER SABRE



The Super Sabre has been developed from the F-86 Sabre and made its maiden flight in May, 1953. One of the most interesting features of that flight was the supersonic speed which was achieved and the Super Sabre is, in fact, readily capable of exceeding the speed of sound in level flight. Power is a 10,000 pound thrust Pratt and Whitney J57 split-compressor turbojet engine, with the addition of an afterburner which boosts thrust to the region of 15,000 pounds.

The Super Sabre is a very large supersonic—45 ft. long, 36 ft. span and 14 ft. high. Wing sweepback is 45 degrees and the tailplane is in one piece, positioned low on the fuselage and movable through a wide range of incidence. The cockpit is fully pressurized and service ceiling of the aircraft is 50,000 ft.

A speed brake is fitted in the belly of the fuselage whilst for landing on icy or slippery runways a ribbon-type tail parachute is used, this normally being stowed in a compartment in the fuselage under the tailplane. Full length leading edge are used on the wings and the flying control surfaces are mounted about half way along the span of the wing.

BUILDING INSTRUCTIONS

First cut out all the printed sheet parts carefully. Cut all straight lines with the aid of a straight-edge (e.g. a metal ruler) and take particular care in forming the notches.

The majority of the basic assembly is carried out right on top of the plan, so run a candle all over the drawing to prevent cement sticking to the paper. Then lay the fuselage keel parts in place and check for correct matching fit. If it is necessary, then cement together and pin down in place.

A complete set of half-formers 1 to 11 should then be cemented in place, taking care to erect these truly vertical. Add W9 and then the 1/16 sq. stringers. Only the two top stringers extend from nose to tail and these must be scarf jointed at former 10 position, as indicated on the plan. Any slight out-of-alignment can be corrected by enlarging the appropriate slot in the former, as necessary. Slight inaccuracies of this nature may creep in, depending on the accuracy with which you cut the original printed sheet parts.

When this assembly has set, remove from the plan, turn over and add the remaining half-formers. Complete the basic fuselage by cementing the second W9 piece in place and the remaining stringers. Former 12 can now be cemented to the front of the fuselage and former 12 to the rear. Trim up the fuselage and sand smooth.

The Jetex clip should be screwed or bound to piece "31", after first facing with asbestos paper (which you will find included in your Jetex unit outfit), and "31" then cemented between formers 6 and 6. A piece of stiff paper is then cut to fit the cut-outs between formers 6 and 10 to form a trough in the bottom of the fuselage. Cement to the appropriate stringers and then trim off excess paper flush.

The wing halves are quite straightforward. Pin the leading and trailing edges and the 1/16 sq. bottom spars in place over the plan. Then add the ribs and the top spar. The rib notches will have to be trimmed to fit the angled spars. Leave a short length of both leading and trailing edge projecting past the root rib. This is trimmed to pass through the appropriate slots in W9 and fit up against formers 5 and 8 respectively to strengthen the wing-fuselage joint. Additional strength is also given by the stub 1/16 sq. spar projecting 1" beyond the root rib. Check each wing for fit against the fuselage side, clean up and cover with tissue.

The tailplane is built up in a similar manner except that no ribs are employed. 17 forms the projecting spar giving added strength to the tailplane-fuselage joint. Check for fit and sand smooth and cover with tissue before cementing to the fuselage. The fin is another simple frame built directly over the plan. This should be covered with tissue on both sides.

All parts should be covered before assembly. The fuselage is best covered with several strips of tissue—two for each side and one for the bottom. Wing panels are covered with one piece for the top and one for the bottom.

Wings and tailplane should be cemented in place accurately to the fuselage sides, giving the wings 1/2 dihedral at each tip. The tailplane has no dihedral and is cemented with 17 against front of former 10. The fin is cemented in place truly vertical, when F8, F9 and F10 can be added to complete the basic assembly. The whole model should then be sprayed or lightly painted with water all over to loosen the covering and left to dry. Wings and fuselage can then be given two coats of thin clear dope and the fin one coat. The tailplane is best left undoped.

Now trim the cockpit cover to fit and cement in place by running a line of dope or thin cement around the edge and pressing in place. Hold until set. Fit the pieces C1 on either side of the spine to fair the cockpit cover into the fuselage, sanding these to shape. The other small details cover into the fuselage, sanding these to shape. The other small details cover into the fuselage, sanding these to shape. The other small details cover into the fuselage, sanding these to shape. The other small details cover into the fuselage, sanding these to shape.

FLYING INSTRUCTIONS

Check the balance of the model by hand gliding over long grass or a similar soft "landing ground", fitting an unloaded Jetex motor in the clip. If the model is too heavy, weight must be added to the nose to achieve a satisfactory glide trim. In the unlikely event of the model being still heavy, cut the tailplane away and cement back with a little negative incidence—i.e. the trailing edge higher than the leading edge. Adjust the trim until you get a nice smooth, fast glide. Any tendency to turn should be countered by warping the fin in the opposite direction.

Under power, flight should be straight, or nearly straight. A sharp turn in one direction or another is almost certainly to be caused by a warped wing or tailplane, or the tailplane not being square with the wings. A moderate turning tendency can be corrected by warping the trailing edge of the fin in the opposite direction.

IMPROVED PERFORMANCE—FLYING MODELS

Improved flying performance will come from the lightest possible model. No cut-outs are shown on the formers, as is commonly indicated on other plans, since the amount of material so removed is usually negligible, as far as weight saving is concerned. If you want to build a really light model the best way to lighten the formers is to punch holes in them, aiming to remove at least two-thirds of the amount of wood. A suitable punch can be made by sharpening the end of a short length of 1/2" diameter drill, brass or steel tube. Cut as many lightening holes as possible without unduly weakening the former. Similar lightening holes can also be cut in F8.

