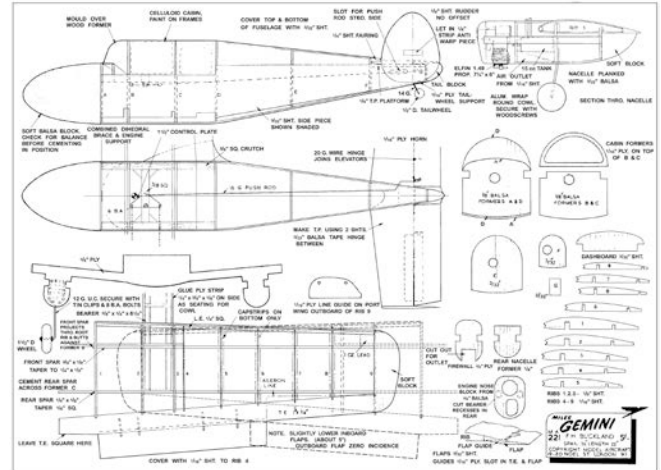
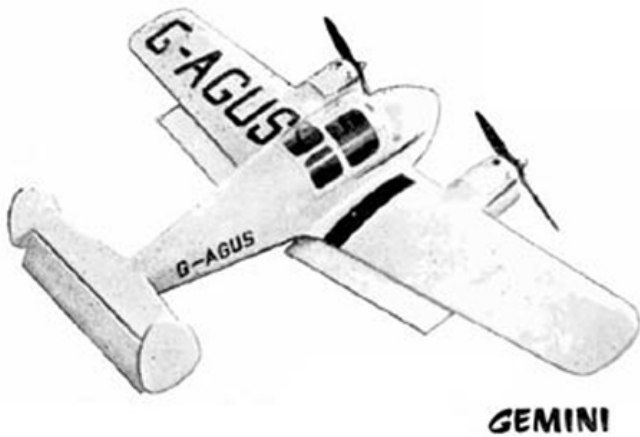


# Miles Gemini



## A heavenly twin control line model powered by two 1.5 c.c. engines by F. Buckland.

Anxious to try a twin, I looked through my magazines until I found a drawing of the Gemini. Here was what I wanted, small and trim looking, sturdy fixed undercarriage, ample wing area the ideal twin for small engines. The model, when built, fulfilled all my expectations, being snappy enough for the expert yet easily handled by the younger modeller.

**Fuselage:** Cut out all formers; mount A, B, C & D on 3/8 in. crutch pieces, fix hardwood bellcrank support anti add side sheets allow to set, then cement in remaining formers. Make tailplane using sandwich method, fixing tape hinges and 20 S.W.G. wire connector between laminations. Cut slot in elevator and cement in 1/16 in. ply horn. Sand to airfoil shape. Cut tailplane seating from 1/8 in. sheet and lit between formers F and G. Install controls and cement tailplane in position, check for free movement. Cover decking and fuselage bottom from I) rearwards with 3/32 in. sheet and install tail-wheel, and tail block and elevator fairing. Make dihedral keeper and engine support from 1/8 in. ply and cement securely against former B. Do not add fins or cabin frames yet.

**Wings:** Build over plan in the usual way, using hard balsa for spars and trailing edge. While wing is drying, cut out engine nacelle formers and bearers, and bend undercarriage legs from 12 S.W.G. wire. Remove wing from plan and sand smooth. Shape trailing edge except for the end which fits into slot in side sheeting on fuselage. Offer wing to fuselage, cement rear spar

to face of former C. and carefully fitting ply dihedral keeper in rib slots, cement firmly to main spar. Place assembly on flat surface and check for accurate dihedral; allow to set hard before proceeding.

**Engine Installation:** Fit bearers and rear nacelle former which is cemented to lace of rear spar. Bolt undercarriage in position using tin can straps and 8 B.A. bolts. Add firewall and install tank, using scrap balsa to keep tank in position.

If you are doubtful of your ability to start two inverted engines, use small stunt tanks instead of the team rare type. The model ran then be inverted for starting and quickly righted when the engines are running. Stunt tanks can, of course, be inverted without fuel running out.

Make air outlet chute from 1/16 in. sheet. Cover bottom of fuselage between wings with 3/32 in. balsa. Cover wing from the root rib to rib 4 with 1/16 in. sheet on top and bottom surfaces. Nacelles ran now be planked in with 3/32 in. balsa. Add tail blocks and sand smooth, I it engines and nose blocks. Make a thin card template for cowling then mark out this shape on thin aluminium, there are no double curves so this is a very simple job. Incidentally, some Oxo containers as supplied to grocers are ideal, being just about the right gauge. Glue a strip of ply to outer bearer and using small wood screw secure cowling to this after well fuel-proofing engine compartment and air outlet.

**Finishing:** Fit 1/16 in. ply cabin frames and wrap over thin celluloid canopy. Windscreen is not difficult to make. Fashion a wood mould, heat celluloid or acetate sheet in front of electric fire until soft, then

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quickly pull over mould. Gloves are useful here. You may have to make two or three windscreens before you are satisfied, but it is well worth the effort. A dummy pilot (bareheaded) can be mounted on the bell crank support if desired. It does look well in the air.

Cement fins securely in place. Shape nose block and spot cement in position, check that model balances where shown, if too far back add a little lead in nose block, then cement securely to former A.

Finish model in your favourite way, but don't spare the elbow grease or sand-paper. The original model was in Milesian colours of cream with red letters and flashes, and was G-AGUS, the Gemini prototype with fixed undercarriage.

**Flying:** Choose a calm day for testing. Use 50 ft. stranded lines. Model will fly on either engine quite well, so don't be afraid to start inboard one first if you find it easier.

If you have never flown a twin before, you have a new thrill coming when the Gemini takes the air.

**Model Aircraft Magazine October 1955**

