2nd Class Lesson Plan

Alignment and Seam Filling

In our second class we will address two very important steps that apply to building any model, proper alignment of parts and filling and finishing of seams.

Alignment

This is not a difficult procedure, but great care must be taken to properly align the parts in relation to each other according to the 3 view line drawings. It's helpful to fabricate an alignment jig / fixture to correctly align and hold the parts for cementing. Helpful tools are a hard flat surface, a combination square used to get a true vertical reference, 6 inch machinist scale, and if possible a surface gauge to check for equal alignment of opposing parts, (wing tips, elevators etc.)

Seams

A good seam starts with a clean well-cemented joint. Sloppy glue work leads to unnecessary cleanup. If the joint requires filling there are many high quality "fillers" available today to choose from, Gap filling (Thick) Cyanoacrylate Glue (Super Glue), "Squadron" Green or White Putty, Bondo Automotive Glazing Spot Putty, 3M Product Acryl – Blue Glazing Putty etc. Which works best is completely up to you. Everyone has there own personal favorite, which may change overtime as newer products become available. If putty is applied and dry, use the correct grit sanding sticks or wet/dry sand paper to remove excess filler from the repaired seam. When filling a deep or wide seam, apply putty in thin coats for best results. It is advisable to use the wet system of sanding as the water removes the putty residue from the sanding sticks or sand paper. Re-apply as many coats of putty as required and sand smooth.

Continuing Fabrication

1.Using a #0 paintbrush, detail paint the cockpit gun breeches black. Add the instrument panel decal using the decal setting solutions Micro Sol and Micro Set. Next install P/N A8 (Cockpit seat), and A15, (Control stick), painting the grip flat black. Set aside completed cockpit assembly to dry.

2. Insert the completed cockpit assembly, check the fit and alignment into the fuselage and glue to both sides of the fuselage make sure the mating surfaces are free of paint

3. Attach the completed wings to the fuselage using thin liquid cement.

Check for alignment and set aside to dry.

4. Assemble P/N's A5, A6 (Cowling Halves), and A10. (Cowling lip) and set aside to dry. Make sure the mating surfaces are free of paint.

5. Assemble P/N's A19, (Propeller shaft) A20, (Propeller cap) A24, (Engine) and set aside. (You may glue this assembly to prevent the propeller from rotating if desired).

6. Remove P/N A7 (Propeller) from the parts tree and sand in preparation for painting.

7. Using the airbrush, paint the completed cowling, engine assembly, and the propeller blades that face the pilot flat black and set aside to dry.

8. Apply putty to the wing and fuselage assembly at the wing roots and wing trailing edge at the bottom of the fuselage, and set aside to dry.

9. Remove P/N's A3 and A4 (Tail planes) and clean any flashing and dry fit into the fuselage.

10. Remove P/N's B35, and B36 (Drop tank halves) and dry fit, apply glue and set these parts aside to dry.

11. Wet sand the fuselage wing root assembly and trailing edge seams that required putty. Reapply putty as needed until seams are smooth and flush with bottom of the fuselage.

12. Using the combination square set the rudder in the vertical position and secure to a flat work surface. Install and glue P/N's A3, and A4, (Tail planes). They should be at 90 degrees to the rudder. Using the 6-inch machinist scale check alignment and that both tail planes are equal to each other in height from the ground. When dry, apply seam filler if required

Homework:

Mask the canopy frame for painting using the supplied thin pre cut strips of masking tape. Complete the horizontal frame members only and bring to the next class for painting. See the sample canopy

End of 2nd Class