



AT-6 Texan



Herr Engineering Corp. HRR114



ASSEMBLY INSTRUCTIONS

Your kit contains the following parts. Please check your kit for any missing or damaged parts before starting construction.

COMPLETE KIT PARTS LIST

1	Plan, Sheet	1	Decal Sheet	2	Yellow Tissue
1	1/16"x12" Landing Gear Wire	1	Molded Plastic Canopy	1	Molded Plastic Wheel Fairing
5	1/16" sq. x18" Balsa Strip	27	3/32" sq. x18" Balsa Strip	2	1/8"sq.x18" Balsa Strip
2	3/32"x1/4"x18" Balsa Strip	1	3/16"x1 3/4" Birch Dowel	1	Tail Wheel Assembly
1	Instruction Manual	1	Molded Plastic Propeller	1	Propeller Shaft
2	Brass Washer	1	Nylon Propeller Bearing	2	PlasticWheels
1	3/16" x 60" Rubber Strip	2	Plastic Wheel Retainers	5	Laser Cut Sheets

Tools and Building Supplies

You will need the following items to assemble this model. You must read and follow all of the manufactures instructions provided with these items!

-Glue

CA, White Glue, Siment or Ambroid all work well.

-Cutting Tools

A hobby knife with a #11 blade is used for general cutting. A single edge razor blade is also a useful cutting tool.

-Clear Dope, Thinner & paint brush

-320 and 400 grit sandpaper

-Straight Pins

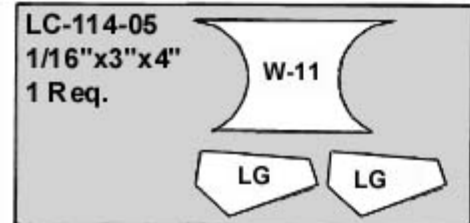
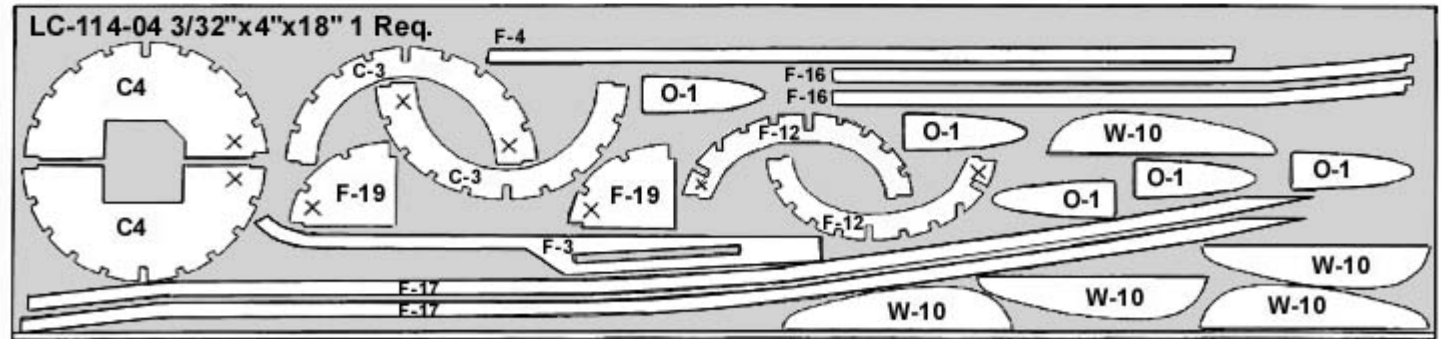
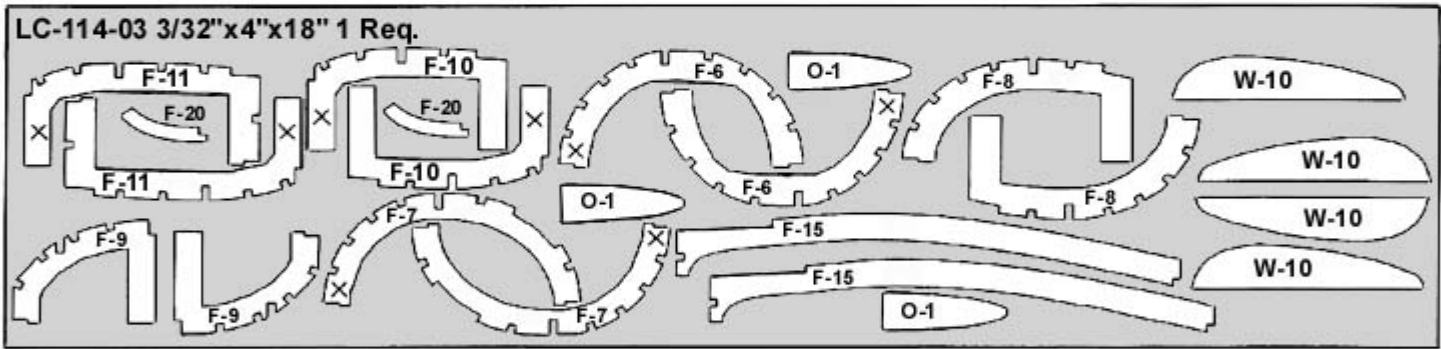
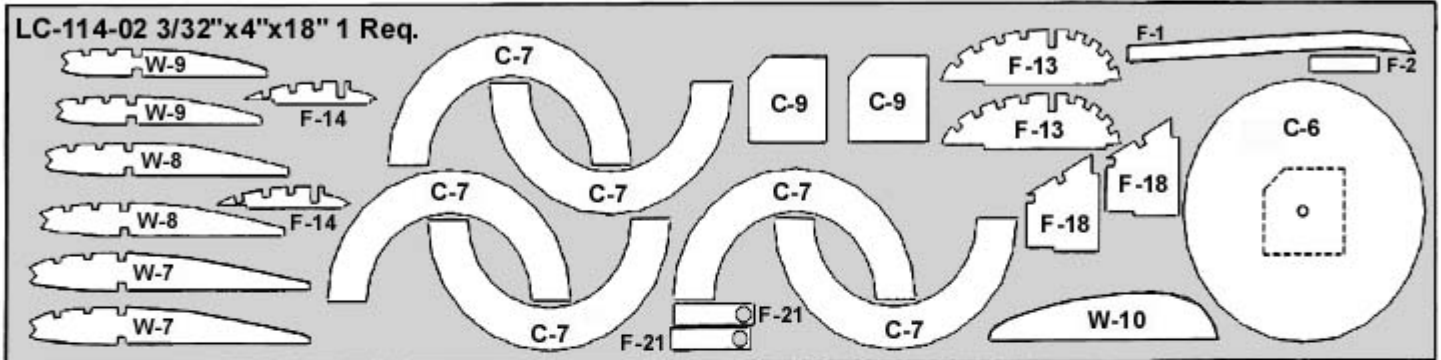
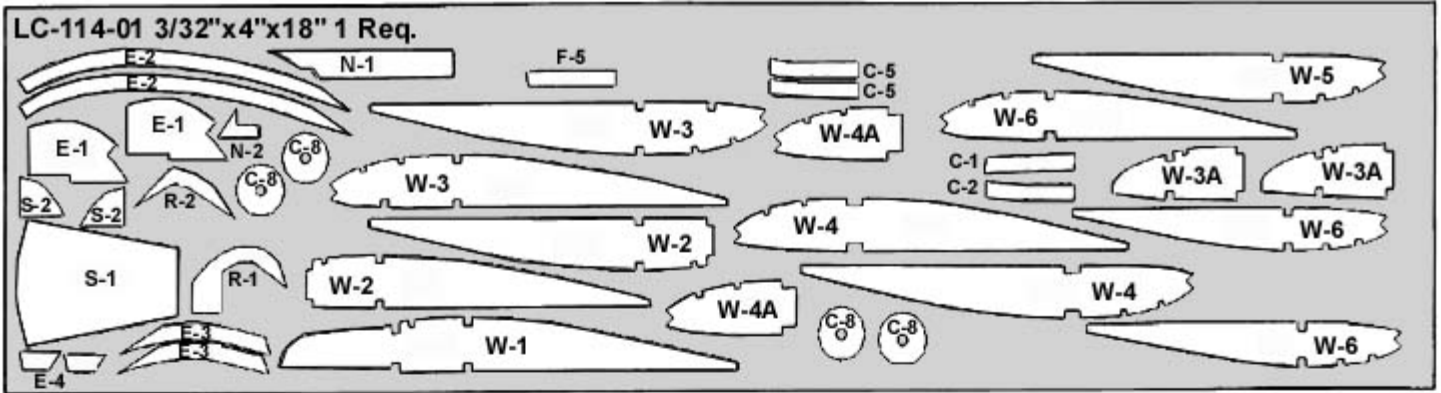
-Wax Paper

-Needle nose pliers

-1/4" & 1/16" Drill Bit

-Building Board

The first thing that you need to do is to identify and mark the part numbers on the laser cut parts using the drawings on the following pages as a guide.
 It is possible that several of the laser cut parts may not be completely cut through. If this is the case you can free the part from the sheet quickly using an X-acto knife.
 NOTE: The slight discoloration on the edges of the laser cut parts may be removed by lightly sanding the edges with 400 grit sandpaper.



Building the Tail Surfaces

1. Always cover the plan with wax paper before building any parts over the plan. This will prevent the parts from sticking to the plan.
2. Build the rudder over the plan using parts R-1 and R-2. The remainder of the structure is made from 3/32" sq. balsa strip as shown on the plan. Remove the rudder from the plan. Build the fin over the plan using parts N-1 and N-2. The remainder of the structure is made from 3/32" sq. balsa strip as shown on the plan.
3. Build the stabilizer over the plan using parts S-1 and S-2. The remainder of the structure is made from 3/32" sq. balsa strip as shown on the plan. Remove the stabilizer from the plan. Build the elevators over the plan using parts E-1, E-2, E-3 and E-4. The remainder of the structure is made from 3/32" sq. balsa strip as shown on the plan.
4. Sand the surfaces of the tail surfaces smooth and round the edges. Do not join the fin and rudder or the stabilizer and elevators at this time. This will be done during the final assembly. Now set these parts aside until needed later.

Building the Wing

NOTE: The wing is built in three pieces. They are the center section, the right wing and the left wing. When each piece is complete, then they are joined together with the proper amount of dihedral under each tip.

5. Pin the center section 3/32" x 1/4" trailing edge and the 3/32" sq. lower spar to the plan.
6. Glue ribs W-3 and W-3A together. The bottoms should be flush and there should be a slight step at the top with W-3A being slightly lower than W-3. Glue the ribs W-4 and W-4A together. These should be flush on the top and the bottom. Be sure to make a right hand and a left hand assembly for both the W-3 and W-4 ribs.
7. Pin ribs W-1, W-2, W-3 and W-4 into position. The ribs should be aligned 90 degrees to the plan. When these ribs are in the proper position, glue them to the lower spar and the trailing edge.
8. Glue the top 3/32" sq. and the 1/16" sq. spars into position. Cut the 1/8" sq. leading edges to length and glue them into position. When the glue is dry, remove the center section from the plan.
9. Start building the right wing by pinning the 3/32" x 1/4" trailing edge and the 3/32" sq. lower spar to the plan. The lower spar should be left a little long so that it will overlap W-4 when the right wing is glued to the center section.
10. Pin ribs W-5, W-6, W-7, W-8 and W-9 into position. These ribs should be 90 degrees to the plan. When they are properly positioned, glue these ribs to the lower spar and the trailing edge.
11. Glue the top 3/32" sq. spar into position, leaving it a little long so that it will overlap the spar on the center section when they are joined.
12. Glue the 1/8" sq. leading edge into position. Remove the right wing from the plan when the glue is dry.
13. Build the left wing using the same sequence as you did to build the right wing.
14. To join the wings, first pin the center section into position on the plan.
15. Fit the right wing into position with the tip raised 1 1/4" from the plan to establish the proper dihedral. The bottom and top 3/32" sq. spars should overlap and the leading and trailing edge joints should be centered on rib W-4. When the wing panel is properly positioned you may glue it to the center section. Now add the two 1/16" sq. top spars to the right wing.
16. Fit and glue the left wing panel into position as you did the right side.
17. Laminate parts W-10 together to make two wing tips and glue them into position.
18. Sand the wing smooth all over. Taper the trailing edges and round the leading edges. Drill 1/16" holes in ribs F-4 for the removable landing gear wire. Place a small drop of thin C/A glue into these holes to harden the wood for better support.

19. Trim the plastic wheel fairing and test fit it into position. When you are happy with the fit you can glue the plastic fairing into place. Now fit and glue W-11 into position. Set the wing aside until needed later.

Building the Fuselage

20. Pin parts F-1, F-2, F-3, F-4 and F-5 into position on the plan.
21. Pin formers F-6, F-7, F-8, F-9, F-10, F-11, F-12, F-13 and F-14 into position. Some formers have an "x" marked on them to show the top. These formers should all be aligned 90 degrees to the plan. Glue them into position when they are properly positioned.
22. Place F-16 and F-17 into position while being careful to keep the formers 90 degrees to the building board. Glue F-16 and F-17 to the fuselage assembly when they are properly positioned.
23. Glue F-18 and F-19 into position. The edges of these frames may be beveled where they contact F-16 to allow a proper fit. Fit and glue part F-20 into position between F-12 and F-19.
24. Fit and glue the F-15 wing saddle into position. The outside of F-15 may be brushed with hot water to help it curve around former F-7 if required.
25. Cut, fit and glue the 3/32" sq. stringers into position on the fuselage. Glue F-21 into position between the stringers just in front of former F-13.
26. When the glue is dry, remove the fuselage from the plan and add the pieces for the opposite side using the same sequence that you used for the first side. Use care to maintain a straight assembly as you build the opposite side.
27. Carefully sand the fuselage smooth. Cut away the support legs on formers F-8, F-9, F-10 and F-11 as these tabs are no longer required and will interfere with the rubberband motor after the model is finished. Now set the fuselage aside.

Building the Cowling

28. Pin parts C-1 and C-2 into position on the plan.
29. Pin formers C-3 and C-4 into position 90 degrees to the plan. The "x" on these formers marks the top. When they are properly aligned you may glue them to C-1 and C-2.
30. Glue part C-5 into position making sure that the formers maintain their 90 degree alignment to the plan.
31. Cut and glue the 3/32" sq. stringers into position on the cowling.
32. Carefully remove the cowling from the plan and build the opposite side.
33. Build the removable nose block using pieces C-6, C-7, C-8 and C-9. Cut the motor drawing from the plan and glue it to the front of C-6 during this assembly.
NOTE: It is easier to glue the C-7 pieces together and sand the inside curve on them before gluing them to the front of C-6.
34. Glue the cowling to the front of the fuselage and then sand the outside of the cowling and the nose block to shape.
35. Carefully drill the 1/4" dia. hole in the nose block for the plastic thrust bearing. Be sure to add the proper amount of right and down thrust as you drill this hole.
36. Test fit the wing and stabilizer to the fuselage. Do not glue them to the fuselage at this time.
37. Trim the canopy and test fit it to the fuselage. Laminate the bottom and side air scoops from pieces 0-1 and sand them to shape.

Covering The Model

38. Sand the entire model with 320 grit sandpaper.
39. Coat the outside edges of all parts with 2 coats of clear dope.
40. Attach the tissue to the model with clear dope mixed 50/50 with thinner.
41. Lightly mist the model with water to shrink the tissue.
42. Apply 2 coats of thinned clear dope to the entire model. Paint the plastic wheel fairing with paint for plastic models only.
43. Apply the decals to the model.
44. Draw additional detail onto the model with a waterproof marker.

Final Assembly

45. Glue the wing to the model.
46. Glue the stabilizer into position on the model. Now glue the elevators to the stabilizer. As an option, the elevators may be hinged to the stabilizer using small pieces of copper wire (not provided in the kit).
47. Glue the fin into position on the model. Now glue the rudder to the fin and the fuselage. As an option, the rudder may be hinged using small pieces of copper wire (not provided in the kit).
48. Paint the framework on the canopy with plastic model paint and glue to the fuselage when the paint is dry. Glue the two air scoops into position on the fuselage.
49. Bend the landing gear wires to the shape shown on the plan. Assemble the wheels, paint them and then secure them to the landing gear wire with the plastic retainers.
50. Press fit the landing gear to the model. Cover parts LG-1 with tissue and glue them to the landing gear wires making spacers out of 3/32" sq. strips.
51. Assemble the propeller. Glue this assembly into the removable nose block.
52. Tie the rubber motor and install it along with the nose block. Retain the motor at the rear of the fuselage with the 3/16" dowel provided.
53. Balance the model at the position shown on the plan. If you plan to fly the model with the landing gear removed then balance the model with the landing gear removed. Your AT-6 Texan is now complete.

Safety Rules

1. Fly your model in a large open area that is free of obstructions, people or their property.
2. Do not fly your model in the vicinity of power lines, trees, streets or buildings.
3. Never try to retrieve any model stuck in power lines, in trees or on a roof or other high place. Never run into the street to retrieve your model.
4. Position yourself at least 150' from spectators before launching model.
5. Never launch model directly at another person or other object.
6. Never stick your fingers into a spinning propeller. Do not try to stop a spinning propeller with your hand or fingers. Never stick any object into a spinning propeller.
7. Fly your model only on calm days. Do not fly when the wind is blowing.
8. Get proper permission before retrieving your model from private property.

Beginners Note

These instructions were written assuming that the builder has previous building experience. If this is your first model then we recommend that you purchase a copy of the following book:

Rubber Powered Model Airplanes By: Don Ross

This excellent book covers basic building and flying procedures and provides valuable information about all aspects of building and flying rubber powered model airplanes.

WARRANTY
<p>Herr Engineering Corp. guarantees this kit to be free from defects in both materials and workmanship at the time of purchase. This warranty does not cover any component damaged by use or modification. In no case shall Herr Engineering Corporation's liability exceed the original cost of the purchased kit. Further Herr Engineering Corp. reserves the right to change or modify this warranty without notice.</p> <p>In that Herr Engineering Corporation has no control over the assembly or use, no liability shall be assumed or accepted for any damage resulting from the use by the user during construction of the kit or the use of the final user assembled product. By the act of building this kit and/or using the final user assembled product, the user accepts all liability.</p> <p>If the buyer and/or user is not prepared to accept all of the liability associated with this product, he is advised to immediately return this kit in new and unused condition to the place of purchase for a full refund.</p>

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