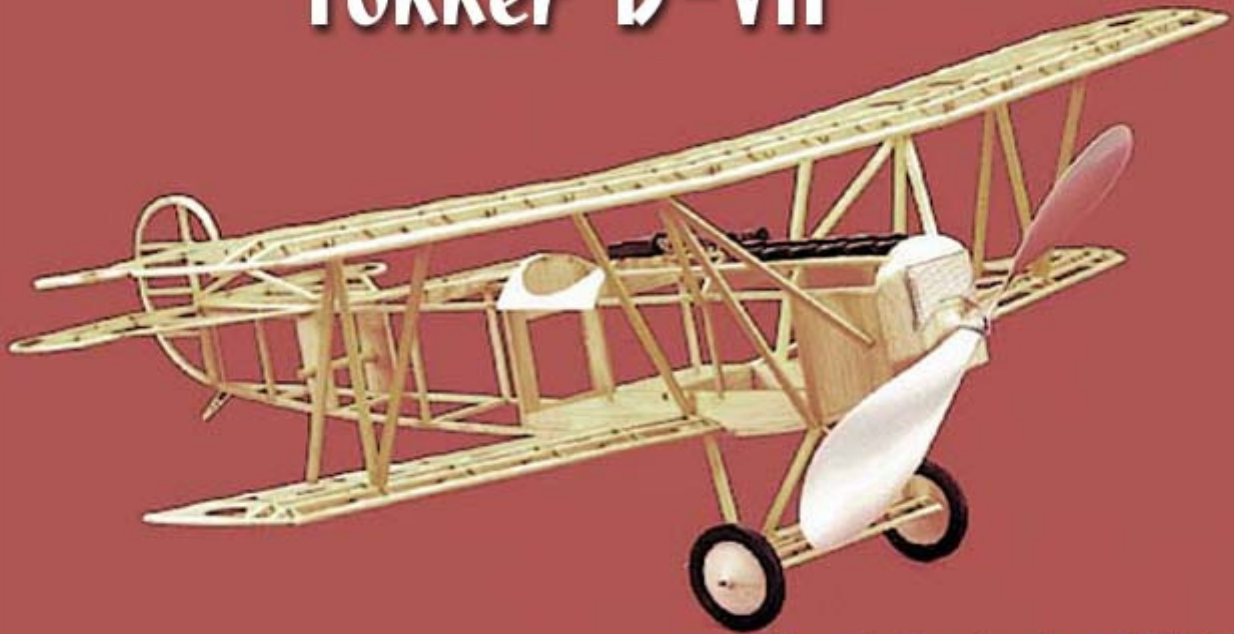




Fokker D-VII



Herr Engineering Corp. HRR105



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	1	Plan Sheet #2	2	Red Tissue
1	Black Tissue	1	1/16"x6" Landing Gear Wire	12	1/16" sq.x18" Balsa Strip
15	3/32" sq.x18" Balsa Strip	2	1/8" sq.x18" Balsa Strip	2	1/16"x1/8"x18" Spruce
2	1/16"x3/16"x18" Spruce	2	3/32"x3/16"x18" Balsa	1	3/32"x1/4"x18" Balsa
1	3/16"x2" Birch Dowel	1	Instruction Manual	1	9" Plastic Propeller
1	Propeller Shaft	2	Brass Washer	1	Nylon Propeller Bearing
1	1/16" Plastic Tube for Wheel Retainers and Spacers	1	3/16"x60" Rubber Strip	8	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

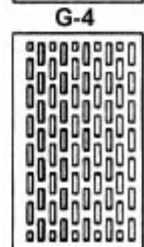
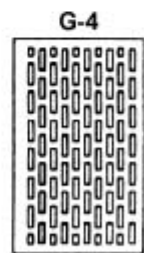
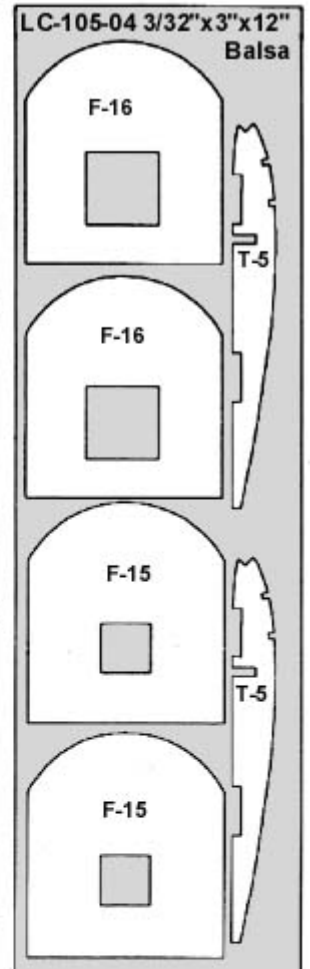
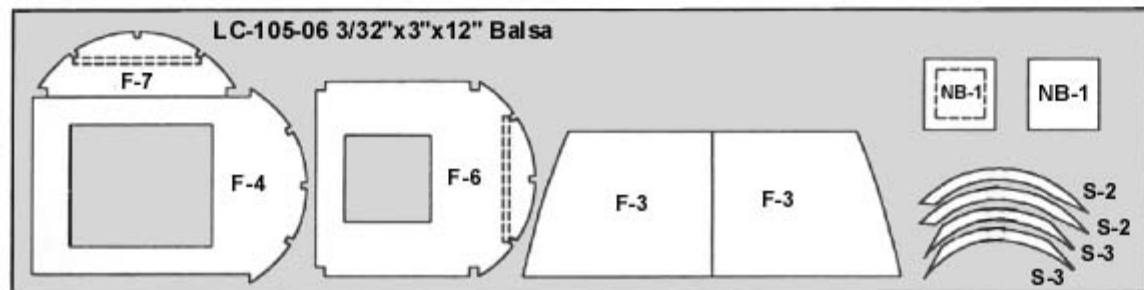
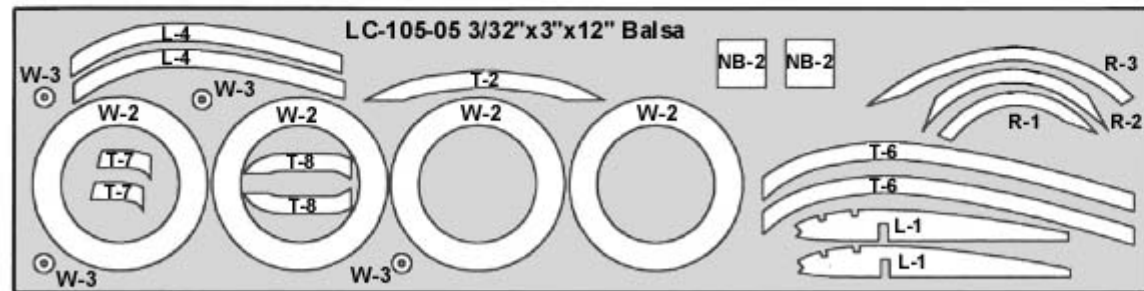
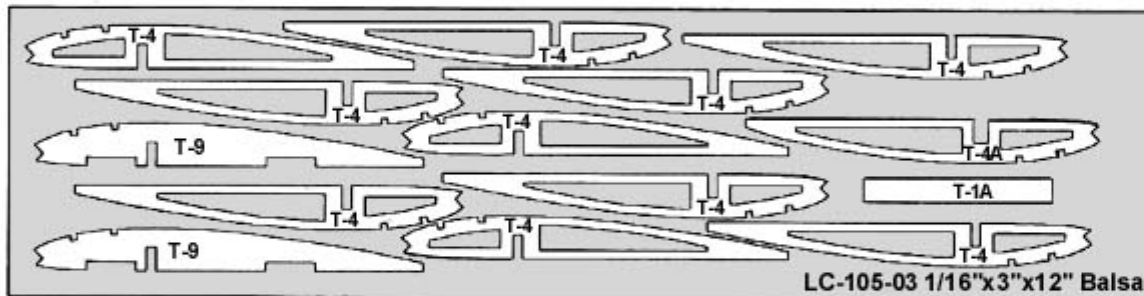
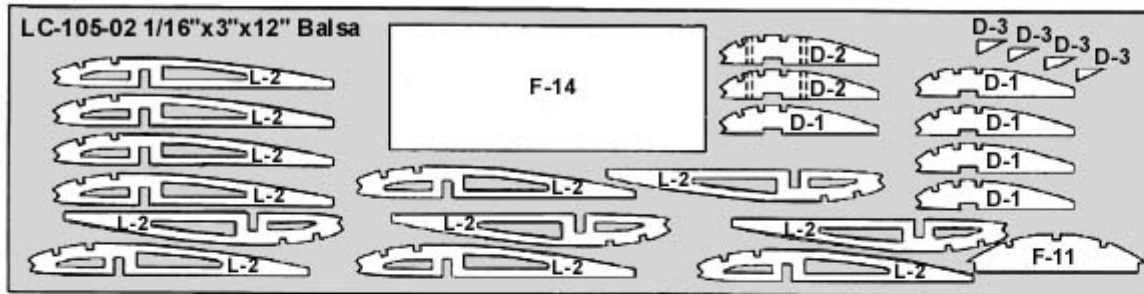
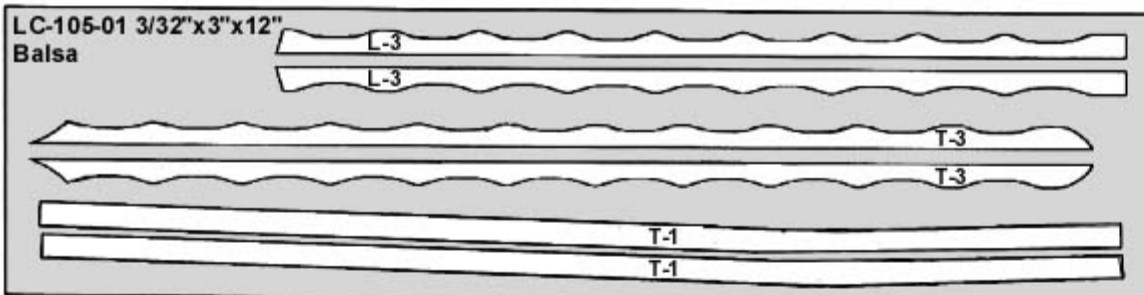
-1/4" and 1/16" Drill Bits

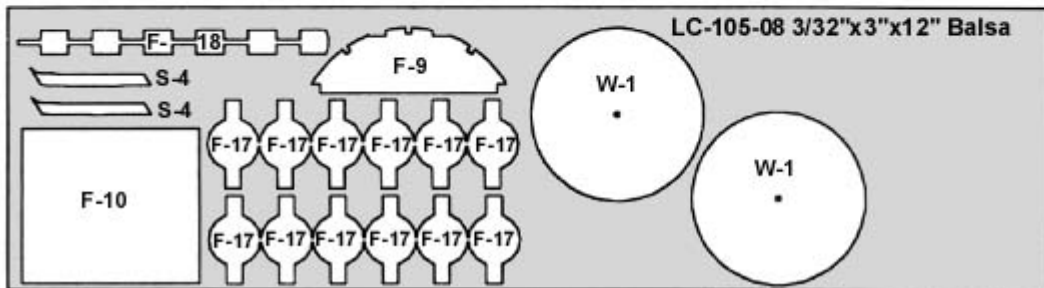
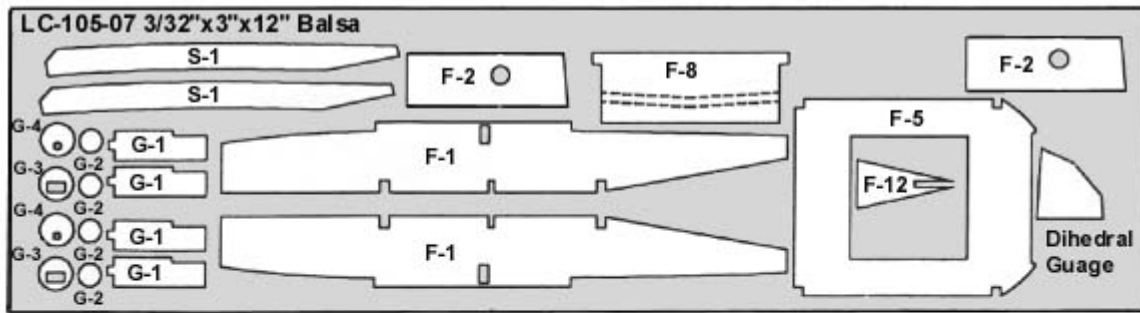
-Building Board

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.





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.

Building the Tail Surfaces

1. Cover the plan with wax paper.
2. Build the Rudder from laser cut parts R-1, R-2 and R-3. The remaining rudder structure is made from 3/32" sq. balsa strip.
3. Build the Stabilizer from laser cut parts S-1, S-2, S-3 and S-4. The remaining stabilizer structure is made from 3/32" sq. balsa strip.
4. Sand the tail surfaces smooth and round the edges. Set the tail surfaces aside until needed later.

Building the Fuselage

5. Build the fuselage sides over the plan using the laser cut parts F-1, F-2 and F-3. The remaining pieces of the side frames are made from 3/32" sq. balsa strip.
6. Glue F-4, F-5 and F-6 into position on one of the side frames. Use a small square to insure that the formers are 90 degrees to the side frame.
7. Glue the other side frame into position on the formers. Use care to maintain a square and true structure.
8. Glue F-7 and F-9 into position.
9. Glue two pieces of 3/32" sq. balsa to the front of F-8 and then glue F-8 into position on the fuselage.
10. Glue F-10 into position.
11. Glue F-14 into position between F-6 and F-9, and resting on top of F-7.
12. Glue the two 1/16" sq. stringers between F-6 and F-9. Glue the single center 1/16" sq. stringer into position between F-7 and F-9.

13. Sand a taper on the inside edges of the tailpost and then glue the rear of the fuselage together.
14. Cut and glue the 3/32" sq. cross pieces into position.
15. Glue F-11 and F-12 into position.
16. Glue the three 1/16" sq. stringers into position on the top rear fuselage.
17. Glue the two F-15's to the front of the fuselage.
18. Glue the two F-16's to the front of F-15.
19. Glue two NB-1's and two NB-2's together to make the removable nose block.
20. Press the removable nose block into position and sand the nose to the shape shown on the plan.
21. Carefully drill the removable nose block to accept the 1/4" nylon propeller bearing. Be sure to add the proper amount of down and right thrust when drilling the hole.

Building the Lower Wings

22. Cut the 3/32" x 3/16" spar to length and pin to the plan.
23. Pin L-3 into position on the plan.
24. Pin L-1 into position. Use the dihedral gauge to establish the proper angle and glue L-1 to the spar and L-3.
25. Glue all of the L-2's into position 90 degrees to the building board.
26. Glue the 3/32" sq. leading edge into position.
27. Place L-4 into position with the outboard edge raised 3/32" from the building board and glue into position.
28. Glue the two 1/16" sq. strips into position on the top of the wing.
29. Glue the 3/32" sq. strips to the L-2 rib at the locations where the "N" struts will later be attached.
30. Remove the wing from the plan and sand the leading edge round, taper the trailing edge and sand the wing smooth.
31. Build the opposite lower wing as you did the first.

NOTE: Test fit the lower wings to the fuselage at this time. Sand the bottoms of the inboard ends of the spars flush with the bottom of the fuselage.

Building the Top Wing

32. Pin the two T-1 spars to the plan and join them by gluing T-1A into position.
33. Pin the assembled top spar into position on the top wing plan. The middle of the spar between the two T-5 ribs will be resting on the plan. The tips of the spars will be raised an equal amount from the plan on each side.
34. Pin the two T-3's to the plan.
35. Glue T-2 into position between the two T-3's.
36. Glue the two T-4's and T-4A into position.
37. Glue the two T-5's into position.
38. Glue the 1/8" sq. leading edge into position between the two T-5's.

39. Glue the two 1/16" sq. strips into position between the two T-5's.
40. Cut through T-3 at the center line of T-5 on one side.
41. Remove all of the pins from the wing parts and rock the spar down onto the plan on one side. This will raise the rest of the wing from the plan.
42. Glue the four T-4's and one T-9 into position.
43. Glue the 1/8" sq. leading edge into position.
44. Glue T-6, T-7 and T-8 into position.
45. Glue the two 1/16" sq. strips into position between F-5 and the wing tip.
46. Remove the wing from the plan and pin the opposite spar to the plan.
47. Build the opposite side of the top wing as you did the first.
48. Remove the wing from the building board and glue the eight pieces of 3/32" x 1/4" balsa to ribs T-5 and T-9.
49. Sand the wing smooth, round the leading edge and taper the trailing edges.

Building the Landing Gear Spreader

50. Pin the 3/32" x 3/16" trailing edge to the building board.
51. Glue parts D-1 ,D-2 a.nd D-3 into position.
52. Glue the 3/32" sq. leading edge into position.
53. Glue the three 1/16" sq. strips to the top of the ribs.
54. Remove from the plan and glue the two 1/16" sq. strips into position on the bottom.
55. Cut away parts D-2 between the two D-3's.

Cover the Model

56. Sand the entire model smooth with 400 grit sandpaper.
57. Cover the top forward fuselage with bond paper. Cut the cockpit from the plan and glue into position on the fuselage.
58. Coat the exposed surfaces of the model with two coats of clear dope.
59. Attach the tissue to the model with clear dope mixed 50/50 with thinner.
60. Lightly mist the model with water to shrink the tissue.
61. Apply two coats of thinned dope to the entire model.
62. Cut the Crosses from black tissue and dope into position on the model.
63. Draw additional details on the model with a waterproof marker and paint the motor detail.

Final Assembly

64. Assemble the landing gear struts over the plan from 1/16" x 3/16" spruce. Cover and finish with red tissue.
65. Glue the axle into the bottom of the spreader.

66. Lightly tack glue the landing gear struts into position on the landing gear spreader.
67. Mark the position of the landing gear struts on the fuselage sides. Tack glue the landing gear assembly to the fuselage. Reposition any of the parts as needed to insure straight and true alignment then glue the landing gear to the fuselage.
68. Assemble the wheels from the balsa and paper parts shown on the plan. Finish the wheel hubs with red tissue and paint the tires black.
69. Install the wheels on the model using the 1/16" tubing supplied in the kit to make spacers and retainers. Now trim off the excess wire axle.
70. Paint F-14 and then glue the durn.mymotor into position.
71. Glue the lower wings to the fuselage. Be sure the bottom of the wing is parallel, front to rear with the bottom of the fuselage.
72. Make two wing jigs from thin cardboard using the pattern on the plan as a guide.
73. Pin the wing jigs to the fuselage sides Use light rubber bands to hold the top wing on the jig. Align the marks on the wing jig with the spar on the top wing.
74. Adjust the position of the top wing until it is straight and true.
75. Cut and fit the front and rear main cabane struts from 1/16" x 1/8" spruce. Finish them with red tissue. Glue these struts to the wing and fuselage securely.
76. Carefully cut the wing jigs away and remove them from the model.
77. Make the remaining front cabane struts from 1/16" x 1/8" spruce, finish and glue into position.
78. Make the two "N" struts from 1/16" x 3/16" spruce.
79. Carefully fit and install the "N" struts to the wings. Be careful not to twist the wings while attaching these struts.
80. Glue the stabilizer to the fuselage using care to maintain proper alignment.
81. Glue the rudder to the fuselage using care to maintain proper alignment.
82. Assemble the two machine guns from the parts shown on the plan. Paint them black and glue them to the model. Glue the tail skid to the model.
83. Assemble the propeller assembly and glue the nylon bearing to the removable nose block.
84. Tie and install the rubber motor using the 3/16" dowel at the rear end to retain the rubber motor.
85. Balance the model at the point shown on the plan. Add weight to the nose or tail as required to achieve the proper balance.
86. Your model is now complete. You MUST READ AND FOLLOW all of the safety rules. We hope that you have enjoyed assembling your model and hope that you enjoy many fme flights.

Your First Flights

1. Make sure that all flying surfaces are straight and warp free.
2. Wind the rubber motor about 100 turns.
3. Point the nose of the model into any gentle breeze that may be blowing.
4. Release the propeller and after it starts turning gently toss the model aiming the nose at a point on the ground 100' in front of you. Adjust the model to circle while increasing the number of turns in the motor. Adjustments can be made by gently bending the tail surfaces and wing trailing edge.
5. A properly trimmed model will circle to the left while climbing under power, level out as the power runs down and transition into a right hand gliding circle.

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.

WARRANTY

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.

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.

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.

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