



Award Winning Model Designs™

P-51D Mustang



Herr Engineering Corp. HRR106



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	2	Decal Sheet
2	Gray Tissue	1	Tailwheel Assy.
1	1/16"x12" Landing Gear Wire	11	1/16"sq.x18" Balsa Strip
1	Plastic Spinner	1	3/16"x2" Birch Dowel
4	3/32"x3/16"x18" Balsa Strip	1	Propeller Shaft
1	9" Plastic Propeller	2	Plastic Wheels
1	Nylon Propeller Bearing	1	Laser Cut Plywood Disk (N-1)
1	3/16"x60" 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

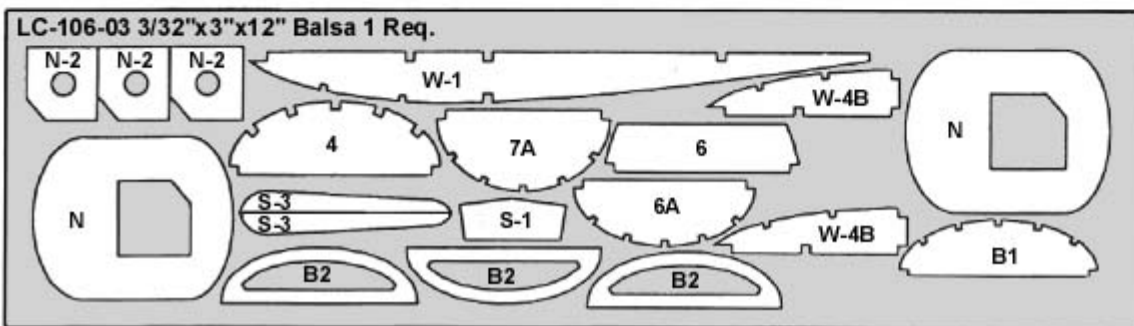
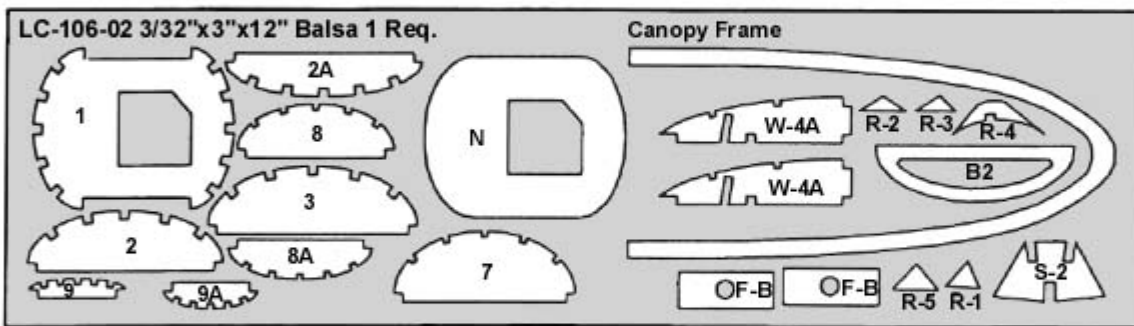
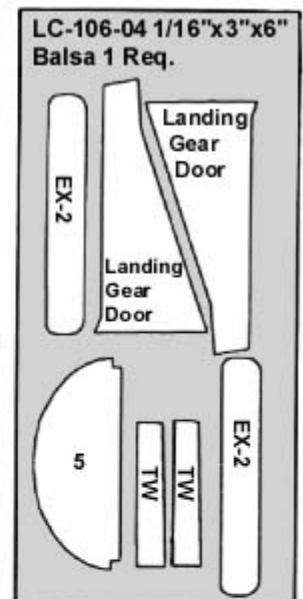
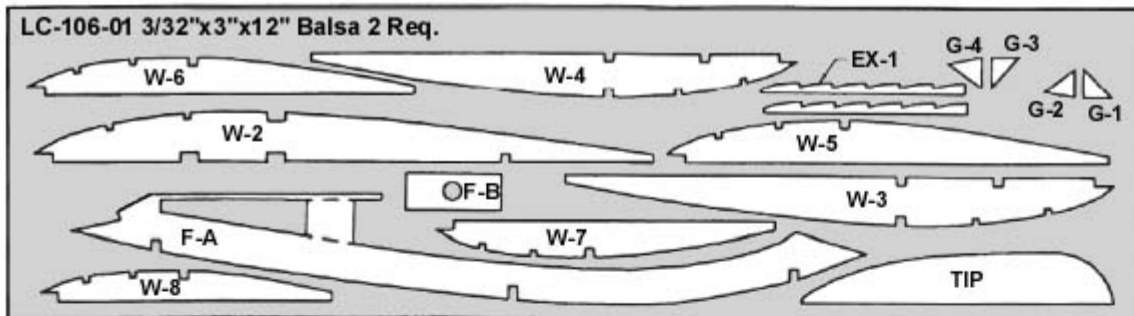
-1/4" Drill Bit

-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.



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, R-3, R-4 and R-5. The remaining rudder structure is made from 3/32"sq. balsa strip.
3. Build the Stabilizer from laser cut parts S-1, S-2 and S-3. 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 side frames over the plan using the laser cut parts F-A and one F-B. The remaining pieces of the side frames are made from 3/32" sq. balsa strip. Splice the top longeron as shown on the plan.
6. Lay the side frames on top of each other and pin the tail posts together. Position and glue #3 into position. Glue the 3/32" sq. cross piece at the front of the wing opening.
7. Glue pieces 4, 5, 6, 6A, 7, 7A, 8, 8A, 9 and 9A into position. Now glue the tail posts together.
8. Glue pieces 2, 2A and 1 into position. Glue B-1 into position. Glue the canopy frame into position.
9. Glue the 3/32" sq. stringers in to position on the top and bottom of the nose.
10. Glue the 1/16" sq. stringers into position on the top and bottom rear of the fuselage.
11. Glue the three N pieces to the nose of the model. Glue the four B-2 pieces together and sand the angle onto the front to match the side view on the plan. Now glue them to the front of B-1.
12. Glue the 3/32" sq. side stringers to each side of the fuselage.
13. Make the nose block by gluing the pieces N-1 and N-2 together.
14. Insert (do not glue) the nose block on the front of the model. Laminate a second part F-B onto the outside of the ones on the side frames. Sand the nose of the model to its final shape and sand the fuselage smooth all over.
15. Trim the canopy and test fit to the model.

NOTE: Do not cut the support from between the wing saddle and the belly scoop until after covering.

Building the Wings

16. Build the center section first. Pin the 3/32" x 3/16" leading and trailing edge to the plan.
 17. Pin the lower 3/32" sq. spars onto the plan. Glue ribs W-1 and W-2 into position. Glue the gussets G-1 and G-3 into position.
 18. Glue the 3/32" sq. spar to the top of the center section. This spar should extend past W-2 by about 1/4" on each side. Remove the center section of the wing from the plan.
- NOTE: Do not put the 1/16" sq. leading edge spars in place until after joining the wing.
19. Build the left wing panel over the plan. First pin the 3/32" x 3/16" leading edge and trailing edge into position. Pin the 3/32" sq. bottom spars to the plan. These spars should extent to the inside edge of W-2 on the plan.
 20. Laminate ribs W-4, W-4A and W-4B together. Cut a paper strip from the plan 3/8" x 3/4" and roll into a tub around the landing gear wire with glue to form a paper tube. Use Siment or Ambroid to glue the paper tube. Glue this tube into the opening in W-4A and then trim flush with the bottom of the rib.
 21. Glue ribs W-3 through W-8 into position. Glue the top 3/32" sq. spar to the ribs. This spar should extend past W-2 at the center and past the tip at the end.
 22. Glue gussets G-2 and G-4 into position.
 23. Remove the wing from the plan.
 24. Build the right wing as you did the left.
 25. To join the wings, first pin the center section to the plan.
 26. Place the left wing into position. The bottom and top spars should pass beyond W-2.

27. Raise the wing tip 1 3/8" at W-8 and glue the left wing to the center section.
28. Glue the right wing panel to the center section as you did the left.
29. Glue the 1/16" sq. leading edge spars into position, cracking them at ribs W-2 and W-3. These strips should extend past W-8 at the wing tip.
30. Test fit the tip to the wings. Bevel the bottom edge of the tip and bevel the spars to fit flush with the top of the tip. Now glue the tips into position.
31. Remove the wing from the plan and sand all of the edges round.

Cover the Model

32. Sand the entire model smooth with 400 grit sandpaper.
33. Coat the outside edges with two coats of clear dope.
34. Attach the tissue to the model with clear dope mixed 50/50 with thinner.
35. Lightly mist the model with water to shrink the tissue.
36. Apply two coats of thinned dope to the entire model.
37. Carefully apply the water slide decals to the model.
38. Draw additional details on the model with a waterproof marker.

Final Assembly

39. Glue the canopy to the fuselage.
40. Trim the belly scoop support from the side frames.
41. Glue the wings into position on the model.
42. Test fit and glue the stabilizer to the rear fuselage being careful to maintain proper alignment.
43. Glue the rudder to the fuselage accurately.
44. Assemble the propeller assembly using the hardware provided.
45. Glue the propeller assembly into the removable nose block. Be sure to use the correct amount of down and right thrust.
46. Assemble the exhaust stacks from the parts provided, paint them black and glue to the fuselage as shown on the plan.
47. Trim the plastic spinner, paint and glue to the propeller.
48. Assemble the landing gear as shown on the plan. The landing gear should not be glued to the model so that it can be removed for flight. You may glue it onto the model if desired.
49. Tie and install the rubber motor using the 3/16" dowel at the rear end to retain the rubber motor.
50. Balance the model at the point shown on the plan. Add weight to the nose or tail as required to achieve the proper balance.
51. 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 fine flights.

Your First Flights

1. Make sure that all flying surfaces are straight and warp free.
2. Wind the 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 buy 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.

LIMIT OF LIABILITY:

In use of our products, Sig Mfg. Co.'s only obligation shall be to replace such quantity of the product proven to be defective. User shall determine the suitability of the product for his or her intended use and shall assume all risk and liability in connection therewith.