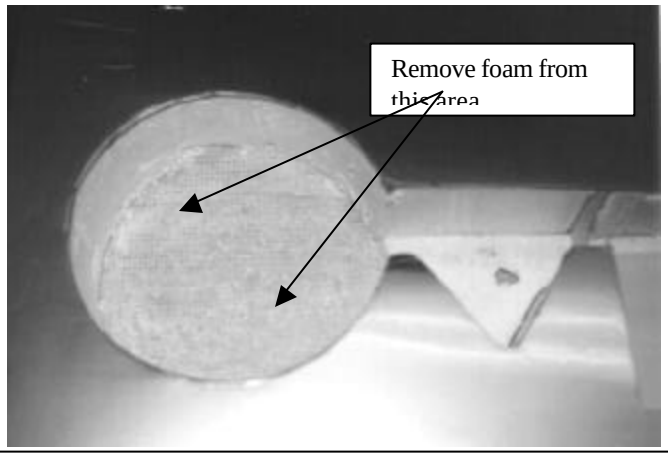
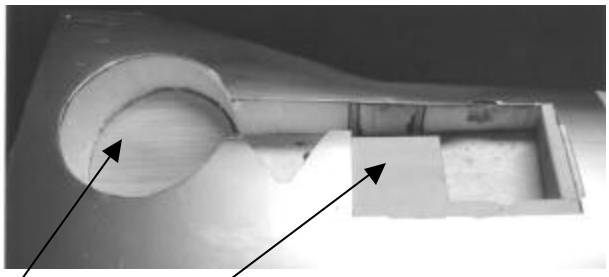
Giantscaleplanes.com

P-51 MUSTANG

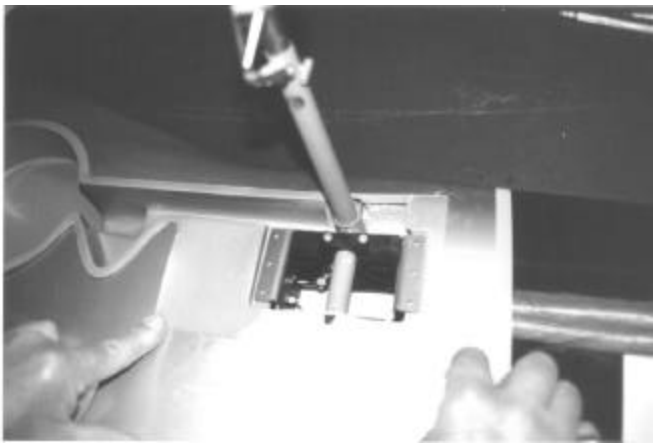


The Giant Mustang is designed for Robart retracts. Remove the excess foam from the wheel well. This will give the proper clearance for the larger wheels. Loosen and remove the foam down to the top wing sheeting.

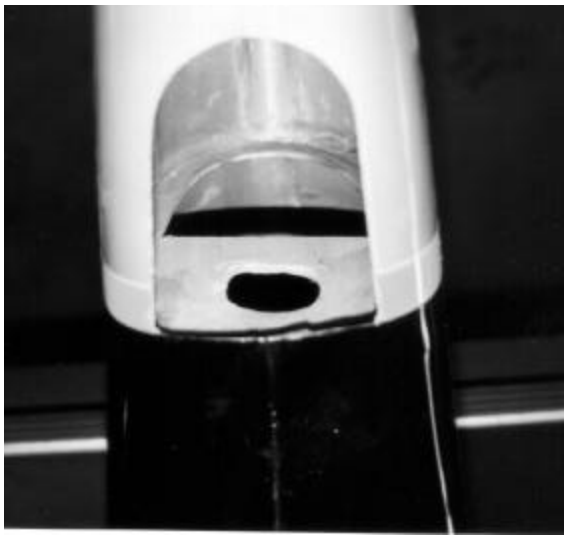


For added strength you can add 1/8 balsa to the wheel well. Cut out circle to match wheel well and use 5 min. epoxy to secure in place.

The plywood retract mount is pre-cut, but may need some adjustment for your installation. After you have properly fit the retract to the opening, glue in place with 30 min. epoxy. This is a high stress area and needs special attention.

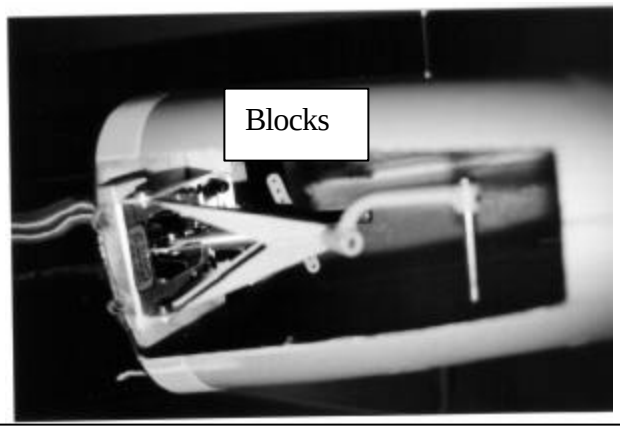


With the wheel cover in place, recheck the movement of the retract. If you are satisfied with the fit and movement of the gear, install the airlines, place the fiberglass well cover in place and screw the landing gear in place. Now glue the well cover down with med C/A. Small amounts work best.



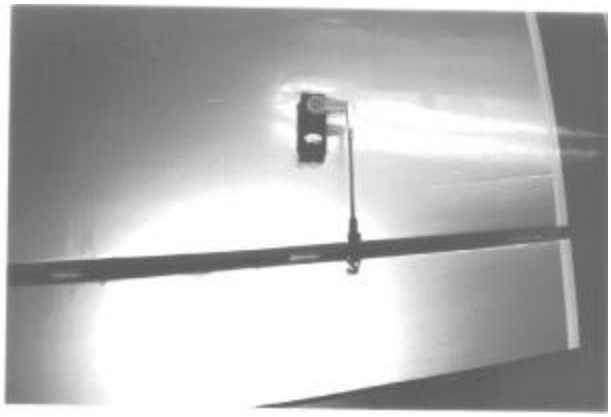
On the lower aft portion of the fuselage, the tail wheel doors are molded into the fiberglass. With a dremmel tool remove the doors. You will find a former for the tail wheel. This former will support the retractable tail wheel. You will also have to cut a hole in the former for the cylinder. Some modification may be needed for you type gear.

Typical retractable tail wheel. This on is Robart.



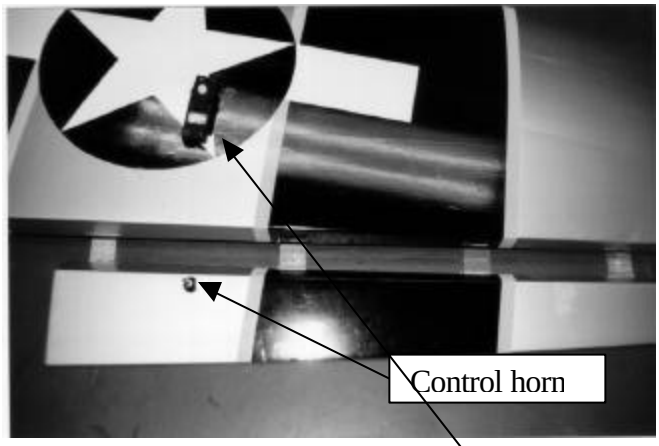
The tail wheel is installed by using two blocks mounted to the tail wheel bracket. Once the blocks are in place, the assembly can be epoxied to the former.

Wings Construction

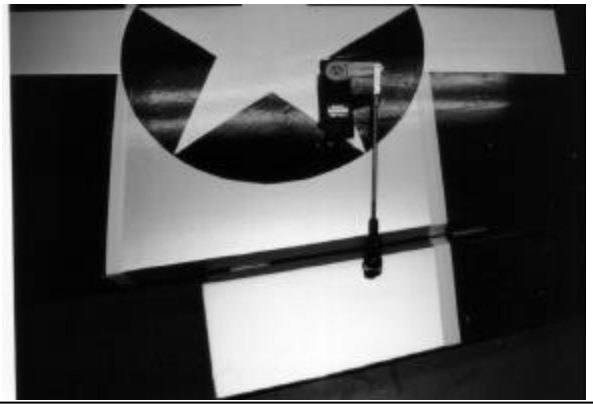


Above is a picture of the servo and linkage installed for the flap. It is very important the system is hinged properly. These large airplanes require a lot of strength in the control systems. Heavy-duty servos should be used on all flying surfaces. Hinges should be placed no more than 3-4 inches apart and epoxyied in place.

The ailerons should be secured in place with four hinges. We recommend any heavy-duty type hinge. (Robart hingepoints, Dubro H/D or H/D C/A hinges). The hinges are placed on the centerline, no more than three inches apart as on all surfaces, and test fit several times for smooth operation. Once you are satisfied with the operation, they can be glued in place with epoxy. On the H/D C/A hinges, use thin C/A.



Above you can see that we used #6 rocket city control horns. If you look at the aileron closely, you will see the hard point in the aileron. Follow the instructions of the horn manufacturer. The aileron servo can also be installed at this time

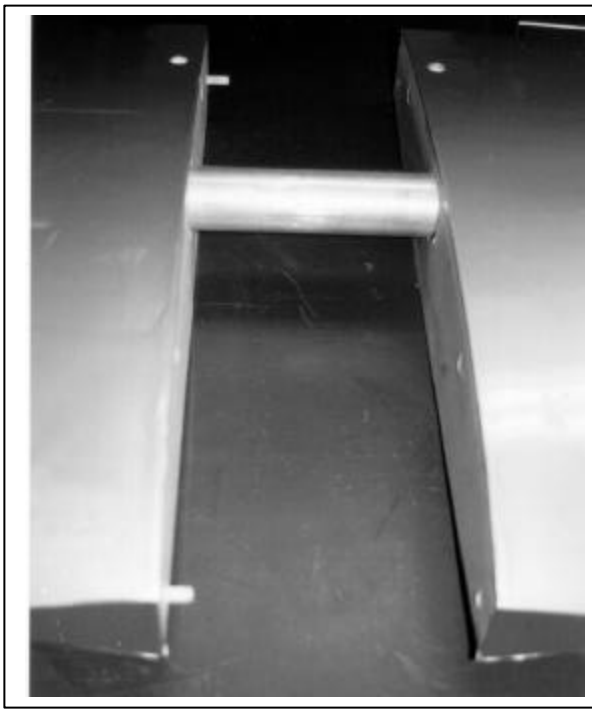


This picture shows the completed installation of the aileron with the servo linkage installed. 4-40 rod and heavy-duty servo arms are recommended for all linkages.

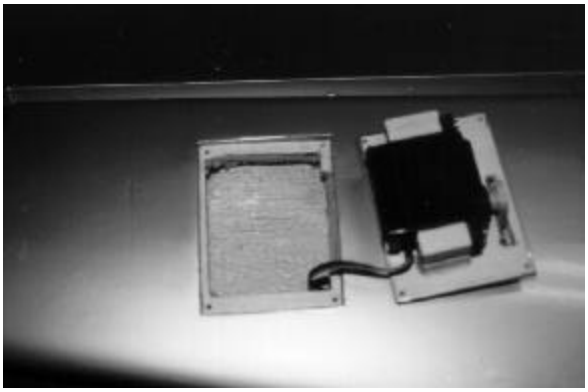
On each wing panel, cut a ½ inch hole just above the servo wire hole. When the wings are joined this is where the servo wires and air lines will exit.

Test fit the wing joint with the tube in place.

Install the two ¼ x 1-inch aluminum alignment pins. If satisfied with the fit, glue in place only on one panel.

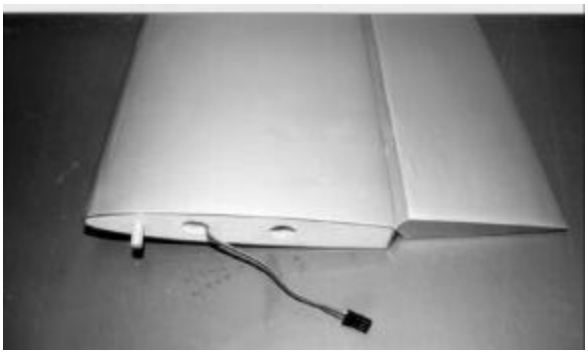


Stab & Rudder Construction



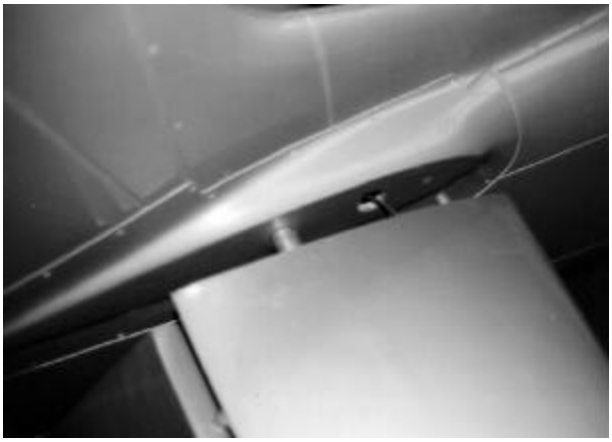
The elevator servos are mounted on the removable plates in each stab using the hardwood blocks. Make sure that the servo arm has clearance in the pre-cut slot.

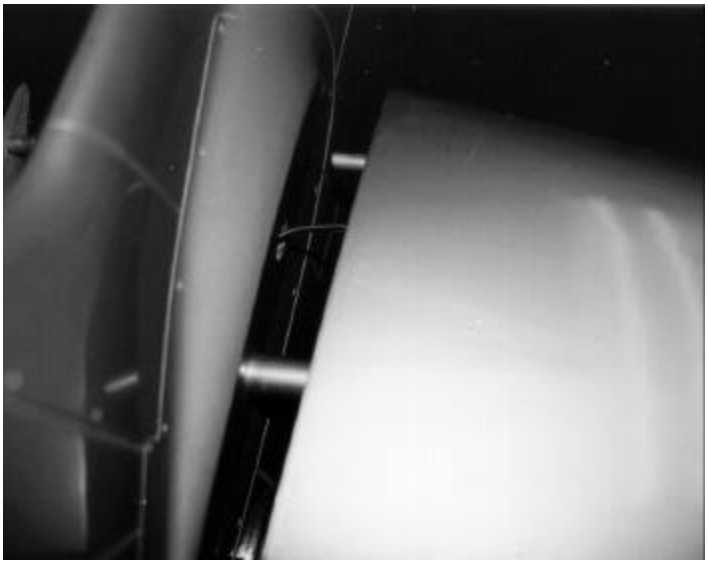
Once the servos are in place in the stab, fasten down with four screws. Run the servo wire in the pre-cut channel.



Epoxy the ¼ inch aluminum pins in the front of each stab. You can also hinge and the elevators and set up the linkage at this time. We recommend the large hingepoints. Use a minimum of three hinges on each elevator.

Drill the embossed holes on each side of the fuse for the stab. The hole at the back is the most important. This will be for the stab tube. This hole can be slightly larger, because it will have the ply tube plates on the inside of the fuse.





With the tube in place, slide both stab halves on and check alignment and incidence (0 degrees). After you are satisfied with the fit, epoxy in place and secure during curing.

The rudder servo is installed in one of the rectangles at the rear of the fuselage. You will find a lite -ply plate just below the fiberglass. There is one on each side of the fuse. There is only need for one rudder servo for this plane.

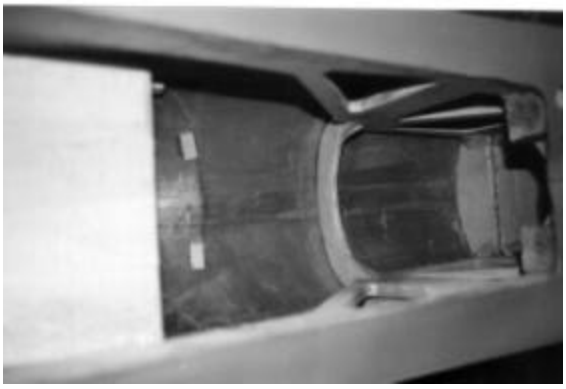
Engine

The firewall has a built in offset. The measurements for a G-62 are 41mm from the left triangle stock edge and 66mm from the top edge.

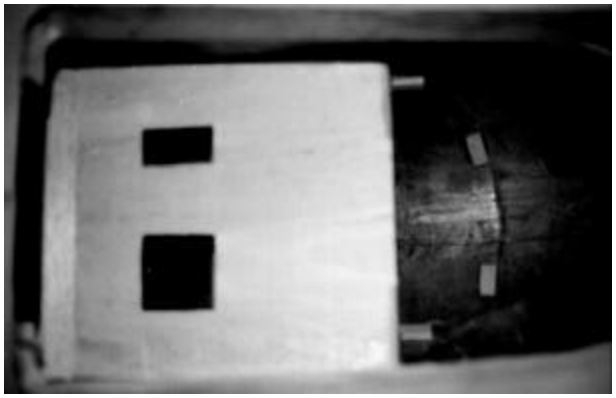
To properly fit the engine you will need to make a block spacer. This spacer is needed to give proper clearance for the cowl. The thickness of the block is determined by measuring the overall length of the engine from the back of the cup mount to the front of the thrust washer. Subtract this measurement from the overall distance, with the cowl in place, from the firewall to the nose ring on the cowl. Add ¼ inch to overall measurement for clearance of the spinner.

Cowl placed on the front of fuselage for measurement.

General Information



The inside front of the fuselage has plenty of room for the fuel tank and other components.



The plate inside the fuse has precut holes for the tail wheel steering, throttle and retract switch servos.

Exhaust stacks are mounted to the side of the cowl.

Finish of the canopy is up to you. You can install a detailed cockpit to jazz up your mustang.

The rear wing bolts are drilled at 1 inch from the back of the wing and 5 ½ inches for the center joint. The front is 4 inches from the leading edge and 5 ½ inches form the center.

P-51 Mustang

Wingspan: 98 inches
Length: 83 inches
Weight: 23 to 26 pounds
Wing Area: 1414 sq. inches
Wing loading: 42 –45 oz/ sq ft
Engine: 60 - 70cc
Radio: 6 channel (throttle, rudder, elevator, ailerons, flaps and retracts.
Servos: Total 9 Standard (throttle and retracts)
Heavy duty (elevators 2, Ailerons 2, Rudder 1 and Flaps 2)
Center of gravity: 8 ¼ inches back from the leading edge of wing at the fuselage.

Check and recheck all glue joints.

MOST IMPORTANT, HAVE FUN