

## MODEL TECH P51 MUSTANG

By Klaus Weiss

When North American Aviation designed and manufactured the Mustang single seat fighter for the British during World War II, they could not have foreseen the impact and popularity this aircraft would have during the war years and for generations to come.

There are still a number of full size Mustangs flying in countries all over the world, and the throaty roar of a twelve cylinder Rolls Royce Merlin in full song delights the crowds at many an air show.

The Mustang has seen several design changes during its development, but only one has really been recognised as THE Mustang, and that model is the P51D.

The Mustang has been the subject of model builders for generations, from plastic through to radio control, and recently, scaled down ultra-lights as well.

Model Tech are recognised as manufacturers of ARF, hand crafted models of high quality and they have recently released a Power Scale Slope soaring glider in a stand off scale P51D Mustang.

After waiting many months, the Model Tech Mustang has at long last arrived in Australia. Like the full size fighter, this sloper certainly attracts a share of spectators and the sight of several Mustangs flying slow passes in formation along the slope, stirs the blood.

The Model Tech, Built Up Hand-crafted, Power Scale Sloper, to give the model its correct title, has a wing span of 1.27m (50 inches) and an all up weight of 907gm (32 oz). The semi- symmetrical airfoil should tell us that this is not going to be a floater, but it will still fly in light winds when many other slope soarers have been grounded. Flight control is aileron/elevator, but additional rudder control would be an easy conversion if it is desired. A built in ballast box and the addition of suitable ballast, will ensure some real exciting times in moderate to strong winds. The Model Tech Mustang is capable of performing most aerobatic manoeuvres, while inside loops, outside loops and inverted flight are a breeze.

### THE KIT:

The Model Tech Mustang comes in a fairly large box. This is due to the fact that the model is almost in a completed stage of construction. The wings, fuselage and tailplane are all separately packaged in plastic, as are the hardware packages. There is an instruction booklet to assist in the building of the Mustang, so follow the steps for a trouble free sequence.

### CONSTRUCTION:

Begin with the fuselage as outlined. The screws supplied with the kit are not what I would have chosen, so a departure from that area was made. Most modellers would

prefer to use their own choice of hardware, but regardless of that fact, everything you will need to complete the model is supplied.

The forward hatch is held down with a dab of contact adhesive, so a push from the inside of the fuselage will set it free without deforming the edges by trying to lift it off from the outside. I used cap head bolts and tapped the holes in the balsa hold down blocks. Use cyano to harden the threads in the balsa blocks. I countersunk the bolt heads for a flush finish on the hatch.

Continue on and mount the elevator servo behind the built in ballast box. I exchanged the rear balsa servo rail for a spruce one.

The wing bolt bracket fits onto the bulkhead where holes have been pre-drilled. I found this part frustrating, as my hands are fairly large and I couldn't fit the nuts and washers behind the bulkhead easily, but perseverance and a hundred dropped nuts finally paid off. I must confess that I once again chose to replace the wing hold down bolt with a nylon Dubro one. The wing hold down bracket must be tapped to accept the nylon bolt.

The Model Tech Mustang is supplied with a couple of aluminium skids, one for the bottom front of the fuselage and the other for the air scoop. I omitted these items for the sake of appearance. The canopy fits very well to the fuselage when trimmed to the moulded frame lines. Final sand the canopy so that it sits flush on the fuselage. Sand the slight concave shape at the bottom front of the canopy, by wrapping a piece of sandpaper around a small spray can or similar and carefully removing material until it fits properly to the upper deck of the fuselage. I painted the canopy frame lines and the exhaust stacks from the inside, so that the paint would not be worn away with day to day handling. The canopy and exhaust stacks were eventually glued in place with Zap A Dap a Goo, a contact type adhesive which dries to a clear finish and holds the plastic parts to the fuselage like the proverbial "---- to a blanket."

I used a 2 inch, Williams Bros. Military pilot to sit in the cockpit, and he appears to have a permanent smile etched on his face. (A slip of the brush, or Deja Vu?)

## WINGS:

The wings are of built up construction, complete with 'D' tube sheeting, cap strips on the ribs and wing tips already shaped and joined to the wings. The wings are well made and precise, requiring very little work to have them ready for covering. The dihedral brace fits neatly into the joiner box and the wing halves mate together in a flush fit. Join both halves with 30 minute epoxy, as per instructions.

Fit the aileron torque rods and centre trailing edges, then trial fit the ailerons and trim as necessary. Cut the hinge slots and drill out the torque rod holes in the ailerons. The wing servo rails were again replaced with spruce pieces and the servo fitted. The wing hold down dowel needs to be fitted fairly carefully. After drilling through the leading edge, you are drilling into the root rib joint and will no doubt veer off to one side, due to the epoxy.

Model Tech have not fitted any internal balsa blocks to drill into and this could be a weak area in the wing. It might pay to cut a hole in the bottom of the leading edge sheeting, prior to joining the wing halves, and gluing in a block of scrap balsa against the root ribs, so that the wing dowel will have something solid to sit in. The plans show the wing leading edge fairing blocks as two separate pieces, but the kit piece is a single block. This makes it difficult to sand to the wing profile, due to the dihedral, so I cut mine in half and glued it back together when the correct shape was obtained. Test fit the wing to the fuselage and mark where the front fairing will sit. Hold the fairing in place with a tiny drop of cyano and sand the fairing to match the leading edge and the contour of the fuselage. When satisfied, remove the fairing and replace it after everything has been covered.

### TAILPLANE:

There is very little to do to the tailplane, apart from hinging the elevator and mounting the control horn. The fuselage diagram in the instruction booklet shows a slot cut into the sides where the elevator joining rod would sit, but my fuselage didn't have those cut. If they are not present, then cut them or else the elevator will not be able to move down. The bottom front of the fin may need some sanding in order to sit flush against the fuselage top, and then it is a simple matter to fit the fin into the notch on the stabiliser for a solid attachment.



### FINISHING:

There are many colour schemes available for Mustangs and you can choose a World War II fighter scheme or a civilian/Reno racer pattern. I chose to cover my Mustang in one of the many USAF schemes and used aluminium Monokote, Dry Set Markings and Monokote trim. The balsa spinner is going to be difficult to cover, so I carefully dipped mine in a tin of suitably coloured gloss paint and hung the model from the aft end of the fuselage until the paint had dried. A couple of coats proved very effective. I normally cover most of the individual items such as tailplane, ailerons etc, before gluing them in place.

Carefully remove the covering in any areas where parts are required to be glued together

and use epoxy to glue on the stabiliser and fin, making sure it is all in proper alignment.

Glue the radiator scoop in place on the wing, as well as the front wing fairing block, and the model is almost ready to fly.

Assemble the radio gear as outlined in the instructions and balance the model in the inverted position. My Mustang finished up with a total flying weight of 868gm (30.6 oz).



### FLYING:

As previously mentioned, this Mustang is not a floater, so pick a good slope and a wind strength of around 10-15kph for that first flight. Launch the model into the lift and trim it for flight. The Mustang performed rolls and loops, bunts and inverted flights with ease and with the addition of ballast, put on a good turn of speed in diving passes. Landing is no problem and the radiator scoop has held up very well.

This slope soarer is very good value for money and will provide many hours of fun. Take care to land carefully, because the built up balsa wing will not take the knocks that a foam core wing can absorb.



Model available from Kelletts Hobbies, 17-19 Memorial Drive, Liverpool N.S.W. 2170.