P-51 MUSTANG 46

Warning! This model is not a toy. It is designed for maximum performance. Please seek advice if one is not familiar with this kind of engine powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wing Span</td>
<td>57.5 in / 1460 mm</td>
</tr>
<tr>
<td>Wing Area</td>
<td>585 sq in / 37.4 sq dm</td>
</tr>
<tr>
<td>Flying Weight</td>
<td>6 lbs / 2.7 kg</td>
</tr>
<tr>
<td>Fuselage Length</td>
<td>49.6 in / 1260 mm</td>
</tr>
</tbody>
</table>

* Specifications are subject to change without notice.*
BEFORE YOU BEGIN

1. Read through the manual before you begin, so you will have an overall idea of what to do.

2. Check all parts. If you find any defective or missing parts contact your local dealer. Please DRY FIT and check for defects for all parts that will require CA or Epoxy for final assembly. Any parts you find to be defective after the gluing process may be difficult to remove for warranty replacement. The manufacturer will replace any defective parts, but will not extend to the parts that are good before gluing to defective parts during assembly. Warranty will not cover any parts modified by customer.

3. Symbols used throughout this instruction manual comprise of the following:

- **Apply epoxy glue.**
- **Apply thread locker**
- **Apply instant glue (C.A.glue, super glue.)**
- **Ensure smooth non-binding movement while assembling.**
- **Assemble left and right sides the same way.**
- **Cut off shaded portion.**
- **Peel off shaded portion covering film.**
- **Must be purchased separately!**
- **Drill holes with the specified diameter (here: 3mm).**
- **Pierce the shaded portion covering film.**
- **Pay close attention here!**
- **Warning!** Do not overlook this symbol!
Parts List

1. MAIN WING -- 1 pair
2. RETRACTABLE LANDING GEAR -- 1 pair
3. MAIN LANDING GEAR COVER -- 1 set
4. WING JOINER 9x32.8x95mm -- 1 pc.
5. LINKAGE CONNECTOR Ø2.1mm w/ set screw -- 2 sets
6. SCREW PWA2.3x8mm -- 8 pcs
   BALSA 8x18x21mm (For Aileron Servo) -- 4 pcs
   PLYWOOD 2x55x85mm (For Aileron Servo) -- 1 pc.
7. SCREW PM2x16mm -- 2 pcs
   SCREW PM2x20mm -- 4 pcs
   FUEL TUBE Ø6x5mm -- 4 pcs
   TRI-HORN M3x14mm (S) (For Aileron) -- 2 sets
   STRAPER -- 2 pcs
   CLEVIS -- 2 pcs
   PUSHROD Ø1.8x90mm w/ Threads (For Aileron Servo) -- 2 pcs
8. STABILIZER & ELEVATOR -- 1 set
   FUSELAGE -- 1 pc.
9. VERTICAL FIN & RUDDER -- 1 set
10. TAIL LANDING GEAR -- 1 set
    WHEEL Ø25mm -- 1 pc.
    COLLAR Ø2.1mm w/ set screw -- 1 set
    SCREW PA3x12mm -- 2 pcs
    SCREW PM2x12mm -- 1 pc.
    ALUMINUM PLATE 0.5mm -- 1 pc.
    M2 NUT -- 1 pc.
11. FUEL TANK 320cc -- 1 set
    BALSA 10x10x98.5mm (For Fuel Tank Position Fixing) -- 1 pc.
12. ENGINE MOUNT PL5111050 -- 1 set
    SOCKET HEAD SCREW M4x25mm -- 4 pcs
    WASHER d4xD9mm -- 4 pcs
13. SCREW PM3.5x30mm -- 4 pcs
    WASHER d3.5xD8mm -- 8 pcs
    M3.5 NUT -- 8 pcs
    SPINNER Ø82mm -- 1 set
    A055PO17000906
14. COWLING -- 1 pc.
    TRANSPARENT 3D TEMPLATE -- 1 pc.
    SCREW PWA2.6x12mm -- 4 pcs
    SILICON GROMMET d1.5xD6.5mm -- 4 pcs
15. LINKAGE CONNECTOR Ø2.1mm w/ set screw -- 2 sets
16. BALSAL 6x6x140mm (For Servo Stand) -- 2 pcs
    PLYWOOD 3x95x163mm (Servos Stand) -- 1 pc.
    FUEL TUBE Ø6x5mm -- 1 pc.
    STRAPER -- 1 pc.
    THROTTLE PUSHWIRE Ø1.2x430mm -- 1 pc.
    PLASTIC TUBE ø2xD3x300mm -- 1 pc.
17. SPONGE 60x70x97mm -- 1 pc.
    PUSHROD CONNECTOR 4x9x20mm (For Elevator) -- 1 set
18. SCREW PM2x12mm -- 3 pcs
    SCREW PM2x16mm -- 6 pcs
    FUEL TUBE Ø6x5mm -- 3 pcs
    CLEVIS -- 3 pcs
    TRI-HORN M3x14mm (L) -- 3 sets
    PUSHROD Ø1.8x518mm w/ Threads (For Elevator Servo) -- 2 pcs
    PUSHROD Ø1.8x577mm w/ Threads (For Rudder Servo) -- 1 pc.
    PUSHROD Ø1.8x933mm (For Elevator) -- 1 pc.
19. CANOPY -- 1 pc.
    SCREW PWA2.3x8mm -- 4 pcs
    SILICON GROMMET d1.5xD6.5mm -- 4 pcs
    PILOT (PC001063A/PC001063B) -- 1 pc.
    DOUBLE-SIDED TAPE 8x800mm -- 1 pc.
20. SCREW PM4x30mm -- 2 pcs
    WASHER d4xD15mm -- 2 pcs
21. ARI SCOOP -- 1 pc.
    SCREW PM3x19mm -- 1 pc.
    WASHER d3xD7mm -- 1 pc.
22. DECALS A055DEC -- 1 set

● COVERING:--
   TOUGHLON STL 251 SKY BLUE
   TOUGHLON STL312 BRIGHT RED
   TOUGHLON STL100 WHITE
   TOUGHLON STL 201 BLACK
   TOUGHLON STL 330 CADMIUM YELLOW
   TOUGHLON STL 370 SILVER
   TOUGHLON ST1250 BLUE

P.2
1 Aileron

Bottom View

2 Landing Gear

KA 3x14mm Screw

Factroy Installed

3 Landing Gear

3mm Set Screw

4.1mm Wheel Collar

L/R
4 Main Wing

- Please dry fit wing joiner into left and right wing to make sure they fit with the proper dihedral angle, mark the wing joiner if necessary. Apply epoxy glue to both sides of all surfaces in contact. Use a stick to apply the glue to inner side of wing joiner sleeve, and apply the glue to wing joiner before putting them together. Wing joiner not glued properly will lead to wing failure and plane crash.

5 Landing Gear Servo

- **Linkage Connector**
  - 3x3mm Set Screw: 2
  - Linkage Connector: 2
  - 2mm Nut: 2
  - 2mm Washer: 4

6 Aileron Servo

- **PWA2.3x8mm Screw**: 8
- **Balsa Wood**: 8x18x21mm
- **Aileron Servo Cover**: 2x55x85mm

- Peel off shaded portion covering film.
7 Aileron Linkage

- Ø 1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

8 Stabilizer & Elevator

Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

9 Vertical Fin & Rudder

C=C'
10 Tail Landing Gear

- **PA 3x12mm Screw**: 2
- **PM 2x12mm Screw**: 1
- **2mm Nut**: 1
- **2.1mm Collar**: 4

Install Balsa 10x10x98.5mm (For Fuel Tank Position Fixing)

11 Fuel Tank

- **Fuel Tank 320cc**
- **Install Balsa 10x10x98.5mm (For Fuel Tank Position Fixing)**

12 Engine Mount

- **M4x30mm Socket Head Screw**: 4
- **d4xD9mm Washer**: 4

- **Engine Mount PL5111050**
- **M4x25mm Socket Head Screw**
- **d4xD9mm Washer**

- **Apply thread locker to screws.**
- **Blind nuts are off-centered to keep the spinner at the fuselage axis.**
### 13 Engine

- **PM 3.5 x 30mm Screw**: 4
- **3.5mm Washer**: 8
- **3.5mm Nut**: 8

*Install Engine position*

- Spinner Ø82mm
- PM 3.5 x 30mm
- Washer d3.5 x D8mm

Illustration is for upright mounting of engine. Side or inverted mounting is possible by rotating the engine mount. Thrust angle will not be affected.

### 14 Cowling

- **PWA2.6 x 12mm Screw**: 4
- **d1.5 x D6.5mm Silicon Grommet**: 4

*First insert the grommet to the cowling then apply screw.*

- Trim the cowling so it will match your engine.

### 15 Servo Set

- **3x3mm Set Screw**: 1
- **Linkage Connector**: 1
- **M2 Nut**: 1
- **2mm Washer**: 2
- **Throttle Pushwire**: 3mm
- **2mm Washer**: 2
- **M2 Nut**: 2
- **Throttle Servo**: N.I.

Please refer to the attached sheet for linkage connector installation.
**16 Radio Equipment**

- Install and arrange the servo as shown in the diagram.

- Balsa 6x6x140mm
- Straper
- Elevator Pushrod Ø1.8x93mm
- Fuel Tube Ø6x5mm
- Plywood 3x95x163mm
- Throttle Pushwire Ø1.2x460mm
- Plastic Tubed2xD3x300mm
- Elevator Pushrod
- Rudder Pushrod

**17 Radio Equipment**

- Fuel Tank 320cc
- Throttle Servo
- Rudder Servo
- Elevator Servo
- Throttle Pushwire Ø1.2x460mm
- Plastic Tubed2xD3x300mm

**18 Radio Equipment**

- Install Sponge for inserting Battery and Receiver.

- Fuel Tank 320cc
- Battery
- Receiver/Battery
- Sponge 60x70x97mm
- Throttle Servo
- Receiver
19 Linkage

PM 2x12mm Screw 3
PM 2x16mm Screw 3

- 1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.

20 Canopy

PWA2.3x8mm Screw 4
d1.5xD6.5mm Silicon Grommet 4

Silicon Grommet d1.5xD6.5mm PWA2.3x8mm

21 Main Wing

PM 4x30mm Screw 2
d4xD15mm Washer 2

PM 4x30mm Washer d4xD15mm
22 Main Wing

PM 3x13 mm Screw
(d3xD7mm Washer) x 1

23 Wing Setting
Adjust the wing and fuselage configuration as shown in the diagrams.

24 Control Throws
Adjust the control throws as shown in the diagram. Throws are good for general flying. You can adjust according to your personal preference.

Elevator

Rudder

Aileron
The ideal C.G. position is 128mm (5.04in) behind the leading edge measured at where the wing meets the fuselage. In order to obtain the C.G. specified, add weight to the fuselage or move the battery position. Check the C.G. before flying.

Measure C.G. with the wheels in retracted position.

### Warning!

**Important Safety Precautions**

# First time flyer should never fly by himself / herself. Assistance from experienced flyer is absolutely necessary.

# Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.

# P-51 Mustang is specially designed to be powered by 2C 0.46 engine, using a more powerful engine does not mean better performance. In fact, over powered engine may cause severe damage and injuries.

# Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller.

# If you find wrinkles on the covering as a result of weather changes, you can use hot iron to remove the wrinkles. Please begin with lower temperature setting and gradually raise the temperature until the wrinkles are gone. Too hot an iron may damage the covering. Don’t use hot iron near the seams or edges, hot iron will melt the glue and shrink the covering at the same time, causing the seams to pull away.

# Check and re-tighten up all factory assembled screws, use thread locker if necessary.
Drill 2mm hole at servo horn.

Insert linkage connector into servo horn.

Make sure shoulder of screw is cleared from servo horn. Add washer to reduce play if necessary.

Tighten up the round nut against the shoulder. Apply CA or permanent thread locker.

After fastening the round nut, make sure that the linkage connector can rotate freely.

Product Registration Form (US Customers)

We would like to share with you any relevant information regarding your model, including product news and free upgrade parts when applicable. Please fill in the following and send to AirBorne Models, 4749-K Bennett Drive, Livermore, CA 94551 USA.

1. Name: ____________________________

2. Address: ___________________________

3. Phone #: ___________________ e-mail: ________________

4. Model: ____________________________

Wing QC#__________________Fuselage QC# _______________________
(QC numbers are stamped on wing and fuselage)

5. Date of Purchase: ________________________________

6. Store Name: ________________________________

Please call AirBorne Models at 925 371 0922 for any assistance in filling this form. Thank you very much for purchasing our product.
Usage of the transparent 3D template

This transparent 3D template is used for position guidance of the actual cutting of the pre-painted cowling.

1. Simply cut the transparent 3D template to fit your engine and exhaust pipe, then slide onto the actual cowling and use as template to mark the openings required for final cutting.