Curtiss P-40B TWEAKS LIST

TYPE: **Curtiss P-40B Warhawk (Tomahawk II)**

SCALE: **1/32**

COMPANY: **Trumpeter**

KIT Number: 2228

MOLD CREATION DATE: 2003

Kit has been re-released by HobbyCraft Canada as reference HCC1697 **1/32 P-40 B/C "AVG TIGERS"**

TWEAKS LIST VERSION 1.0 (publication date: June 2005)

Compiled by Thierry Laurent.

The following list is intended to help modelers in improving scale accuracy of an airplane model replica. In no way is it intended to support or be offensive towards a scale model company.

As such, it is only the result of a progressive process and is in no way intended to be absolute or even comprehensive. Hence, it is intended to focus on commonly admitted discrepancies and will probably not cover some errors. It is up to the modeler to decide whether correcting the listed issues is worth the time and money he will have to invest in the quest for accuracy process.

No aftermarket correction or detail set is mentioned in this document as the availability of such items may be very variable. Hence, refer to other LSP sections to find relevant information. Moreover, aftermarket sets do not necessarily correct all listed issues. Please refer accordingly to relevant documentation.

1. NOTICEABLE FUSELAGE ISSUES (from front to rear)

- Propeller is in a course pitch and its blades are too thick.
- Exhausts parts are very badly engineered. It takes ages to glue them, fill seams and sand them before adding the missing weld lines. Be brave or replace them with resin aftermarket parts.
- External gunsight is overscaled.
- Rear cowl flaps may be opened or closed as both options are given (parts A8 & A9). However, they are overly simplified and too thick. If you want to open them, sand them or replace them with photoetched parts, add missing overlapping ones (to close the gaps between kit ones) and add the actuators.
- The two shell ejection chute holes and deflectors are missing behind the rear cowl flaps.

- Two fuel drain pipes should also protrude from the fuselage belly port side in the same area (at the level of the bulkhead separating the engine and cockpit).

- Hand hold raised line on the port fuselage should be recessed.

- Radio access door and a panel located under the tail elevator are protruding where as they should be flush with the fuselage port side. Sand them. Restore rivets as well as door hinge.

- Upper fuselage cross-section should be flat. Kit area is slightly curved. This is not easy to solve as this influence the rear windows shape.

- Tail horizontal surfaces are not correctly proportioned. Their chord is not correct for a P-40. In fact, they looked like P-36 ones. Moreover, elevator hinge external side should be longer than the inner one. The kit is missing this step as the hinge oblong hole in the tail plane is symmetrical. Note there are also too many rivets on the elevators parts. It seems that Trumpeter unfortunately reproduced errors of the Detail & Scale plans. Revell P-40E has correctly shaped parts. Using the mounting tabs put both elevators down. This is not correct. To solve this, remove them to align parts with the wings or bend the ones of one elevator.

2. NOTICEABLE WING/WEAPONS ISSUES

- Flaps have two-dimensional internal details and some nasty injection marks to fill. Note that P-40 had closed flaps on the ground. Hence, simply cut the stabs and glue them on their wells. Nevertheless, if you want to open them (e.g. for maintenance), either detail them with plastic strips or replace them with photoetched ones.

- British version should have a cranked wing pitot tube.

3. NOTICEABLE COCKPIT ISSUES

- Cockpit is far too shallow. Trumpeter engineers have very probably based their parts on the MBI book scale plans as they showed the same depth error. Because of this discepancy, floor is too high and flat where as it should be lower and curved as it is actually the upper wing surface. Sidewalls are too short (15mm rather 23,5 to 26,5mm) as well as rear bulkhead (32 rather than 43mm). Replace the cockpit with a resin/photoetched set or lengthen and detail the side parts & rear bulkhead and scratchbuild a new floor.

- Details on sidewalls (such as the map case) are rather correct but distorted because of the aforementioned depth error. Add missing details such as throttle link control rods.

- Seat is undersized and too thick. Actual one is made of embossed iron sheet and has no thick rounded edge like the kit one has. Seat frame is too short (add 11,5 mm).

- Front instrument panel is correct. It uses dials film to be glued behind a transparent (?) panel part. However, pedal vertical supports (on part C34) are far too short: 5,5mm rather than 13mm.

- If you use dropped elevators and ailerons, offset the control stick.

- If you intend building a Brit plane, do not forget to use Sutton pilot harness rather than the kit seat belt buckles.

4. NOTICEABLE CANOPY ISSUES

- Kit has a mold line in the middle of the windscreen part. Remove it cautiously.

- Early P-40 windscreen had no internal frame. Kit windscreen has two ribs molded on its internal faces. These locating tabs are intended to glue the pilot armoured glass. Work very cautiously (sand & polish) to remove them as the bulletproof glass was actually secured to a bar going across the top rim and on the fuselage. Glue the glass part with Krystal clear or similar white glue.

- As abovementioned, the rear fuselage has a curved rather than flat cross section. Consequently, the rear windows are misshaped. For similar reasons, the side-view shape of the windows is also wrong.

5. NOTICEABLE LANDING GEAR ISSUES

- Front bulge of main landing gear wells do not look like actual one. It should protrude more from the wing front edge.

- There is a step on the inner side of the main landing gear wells fairings. On the actual airframe, this step that has a larger width than the kit one. Moreover, kit area's thickness is rather constant from the front to the rear whereas this step should progressively decrease to merge with the wing (before the round wheel well hole). This explains why the fairing is not smooth in this area (that is correctly shaped on the Revell P-40E).

- A lot of rivets are missing inside each landing gear well fairing. Add them or simply glue a photoetched part. Fairing well internal sides should also be improved.

- Add the missing hoses and lines in each wheel circular well.

- Landing gear legs are correct and well detailed. Simply add hydraulic fluid brake hose on the main landing gear legs.

- Fill injection marks and sand main landing gear doors (too thick). Add structural detail on their internal face (scratchbuild or photoetched parts).

- Rear wheel well has no structural detail but this is not noticeable on the assembled model.

6. OTHER NOTICEABLE ISSUES & MISCELLANEOUS REMARKS

- Kit is made of light gray plastic. Its shapes & dimensions seem correct except the abovementioned tail issue.

- Rivets' engraving is a little bit on the heavy side (more particularly on the fuselage belly and elevators).

- Similar remark may be done regarding fabric covered moving surfaces (it is recommended to sand them a little bit).

- Except some parts such as .50 ammunition box parts D28 & 29, fit is generally excellent.

- Kit has nice photoetched parts to depict engine coolers screens, seat belt buckles, ring sight and parts to blank off the landing flaps middle section area.

- Kit has transparent parts for wings and fuselage nav lights.

- Kit has (fortunately!) no vinyl tires.

- Kit has a fairly detailed Allison V1710 engine with radiator, ducts, cooling pipes, main plumbing, detailed front spinner plate, etc. Some areas are nevertheless too simplified (e.g. upper area with inlet manifolds). Moreover, rear radiator ducts are missing and the kit engine mount frames are vertical from the front whereas the actual top and bottom braces go out at diagonals. Unfortunately, the kit offers no way to display the engine sides or bottom as only the top cowl part A 19 is removable. Be prepared to cut yourself some of the nose cowl panels to show the engine parts. In this case, rebuild the engine panel frames; add hoses, hydraulic lines, wiring, etc. If opening up the engine side inspection panels below the exhausts, the internal wing cross section needs to be scratched in as internal structure is exposed all the way back to the firewall. Build the replacement section up onto the lower wing section so the back of it butts up against the firewall.

- .50 machine guns are quite detailed if one considers what is visible. However, if you consider leaving the upper engine cowl opened, be prepared to detail them a little bit.

- Similarly, there is no way to display the wing mounted .30 machine guns?!? If you want to show them, you will have to cut access doors and detail the area.
- According to the airframe, fuselage lights (under the canopy sliding part and back by the tail) are not necessarily present. Many wartime pictures show an overpainted circle.

- The tail moving part uses a photoetched hinge/iron pin combination to keep it “movable”. All other moving surfaces such as flaps or tail elevators are not movable as they use simple plastic tabs.

- Kit has no 50 gallons external fuel tank.

- Kit depicts a P-40B with early US markings (P-40B, 18th Pursuit Group, USAAC) and British ETO training squadron markings (Tomahawk IIA, RM-E, AH781, 26 Sqn, RAF). It is a little bit unfortunate as “Flying Tigers” Chinese as well as British/Commonwealth MTO 112 Sqn “sharkmouth” schemes are far more attractive. Unfortunately, it seems that none of the schemes is correct:

    - US national stars are wrongly oriented and extrados one should be placed further toward the wingtip. Moreover, it is probable the scheme does not correspond to a Pearl Harbor era plane but rather to a later one.
    - Brit scheme also has mistakes: plane serial is probably dubious (AH-781 on profiles in the MBI book and a Scale Aviation Modeller International but a wartime picture of the MB-E plane seems showing a 791 serial number) and code colour is odd (white rather than Mid-grey). Fuselage band and spinner should probably be Air Ministry Sky Blue and plane bottom should be Sky. There are multiple interpretations of the “Sky” color but wartime pictures show a lighter color on the spinner than on the

bottom. The scheme depicts a plane from N°26 squadron in Gatwick. This unit used Tomahawk as training planes, mainly for low-level tactical reconnaissance. Wartime pics showed a round window in the radio hatch (camera window?). Boxart has the same window. Similarly, there is a round cutout in the British national roundel. However, kit hatch has no window and there is no information related to such an item in the instructions?!?

- Kit stencils are far from being comprehensive as they are limited to the propeller blades ones.

- If you intend building a "Flying Tigers" plane, do not forget they were hybrid birds with P-40 B & C features. Here are some points to consider:

  - AVG planes used external circular gunsight and N2AE gunsight on the cockpit floor.
  - AVG planes had either Vickers .303 or Browning .30 wing machine guns. Visible external difference lies in differently shaped holes in cooling jackets.
  - AVG planes had the fuel tank behind the pilot seat (as in the P-40C)
  - AVG planes had the simple large belly belt, the belly and shoulder belts or the Sutton harness. Check the airframe you intend to build.
  - AVG planes had a cranked wing pitot tube.
  - Some AVG planes had the fuselage light at the cockpit level (such as R.T. Smith "77"). Others had no light (overpainted circular plate).

- If you intend building a desert Tomahawk, do not forget some airframes had a metal sheet inserted over the windshield bar (over the top of the armoured glass) to stop crap from falling down in between the glass and windshield.

The following sources were used to build this list.

Modelling essentials:

- Ehrman, Vlastimil, Roman Valerij, *Curtiss P-40,* MBI, 1998.

- Green, Brett, *Modelling the P-40*, Osprey Modelling, Osprey Publishing Limited, 2005.

- Kinzey, Bert, *P-40 Warhawk Part 1*, Detail & Scale Vol. 61, Squadron Signal Publications, 1999.

There are other possible sources such as the Squadron In Action and Walkaround but they do not give a large coverage of early Warhawks.

Other used books for AVG version:

- -, "*Tigres Volants" mercenaires de l'American Volunteer Group*, Ciel de Guerre n°3, TMA Editions, 2005.

- Couston, Jean-Louis, *"Flying Tigers" American Volunteer* Group, DTU, 2001. (French book with detailed English summary: one of the very best AVG modelling references).

- Tullis, Tom, *"Tigers over China" The aircraft of the AVG*, Eagle Files 4, Eagle Editions, 2001.

Other references:

- Some magazines articles (more particularly from Replic, Fine Scale Modeler, Scale Aircraft Modelling, Scale Aviation Modelling International & Tamiya magazine)

- Some web pages (more particularly LSP & www.p40warhawk.com)