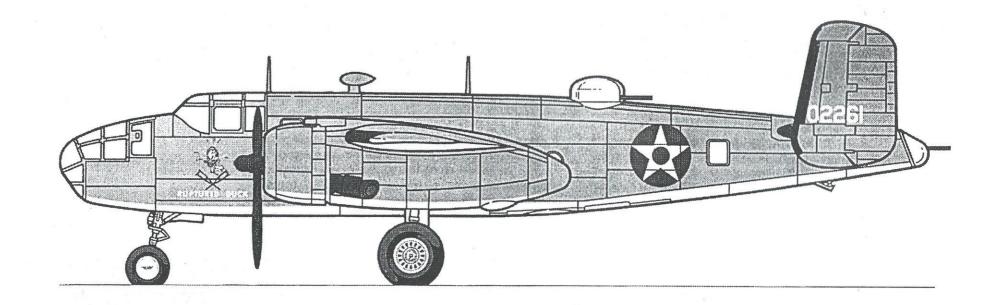
B-25B Mitchell





Mitchell B-25B INSTRUCTIONS

The B-25B Mitchell became famous thanks to General James Doolittle and the handpicked crews who flew these planes off the deck of the carrier USS Hornet. The raids on Tokyo and Yokohama were the first American counterstrikes in the Pacific war. Two and possibly six of the Doolittle raiders carried individual markings below the pilot's cockpit. We are certain that "Ruptured Duck" and "Hari Carrier" had painted personal insignia. There is a possibility that "Whiskey Pete", "Whirling Dervish", "TNT" and "Bats Out of Hell" also had painted markings, but this has not been confirmed through contemporary photos. We have included markings for "Whiskey Pete", "Whirling Dervish" and "TNT" based on our best information. New evidence may come to light.

It appears that the markings on the other "named" aircraft were applied with chalk and therefore had a very

short life. The surviving raiders have dim memories concerning this interesting aspect of the event.

You will notice a considerable difference between the "Ruptured Duck" nose marking in this kit and the marking that is most often portrayed. The kit marking is based on artwork that was prepared by the pilot, Ted Lawson. He and his widow attest to the authenticity of this art. The marking that we are most familiar with had its origins in the movie *Thirty Seconds over Tokyo* and was created by the film studio. Since there are no known photographs of the actual marking taken on the HORNET, we feel comfortable offering Ted Lawson's version. After all, he was there.

Be sure to consult your references to any specific aircraft that you may be modeling to detect any painting and finishing departures from the Doolittle planes.

Like all Accurate Miniatures kits, this one might be a little different from what you're used to. We know that lots of modelers (most) don't like to read instruction sheets, but pictures can't always tell the whole story. Assembly of this kit will often benefit from a word or two to help the process along. We strongly recommend that you go through this sheet and study the various assemblies before actually tackling them. By the time you finish, you will have a far greater understanding of the real airplane than what you might get from just going through an assembly process. You'll actually become "involved" with the Mitchell. Be sure to test fit the parts before applying adhesive and check the alignment of the parts often as the glue dries. There are quite a few small pieces in this kit, and they will present the builder with a reward greater than the challenge of assembling them.

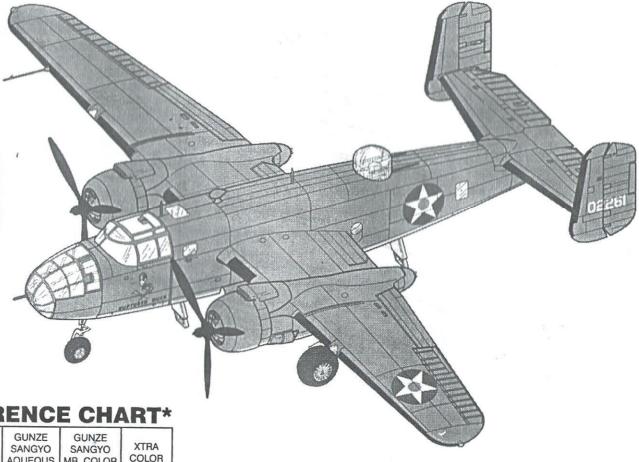
This kit is built around subassemblies. These subassemblies are constructed and then installed into the fuselage; wings are built up, etc. until the kit is completed. You may choose to construct the bomb bay subassembly before the cockpit subassembly or vice versa. You may want to start with the turret assemblies. Just be sure to install these subassemblies when we recommend. Again, we strongly suggest that you follow these instructions! An interesting feature of this kit is that it provides painting masks for the canopy, windows and nose glass (see box lift). While this kit is specific to the box art subject, it also contains the basic parts required to construct any number of other airplanes. Simply consult your reference material and look to the aftermarket decal people to offer markings for your personal favorite subject aircraft. Now, break out the paint and glue and have a good time.

IMPORTANT

We have put quite a few of these kits together (like 100!) and have found that there are many different ways to approach the assembly. Still, our building experience causes us to recommend the sequence in this sheet. However, you may still wish to vary this sequence slightly to fit your personal building techniques. You certainly will want to "paint as you go."

Each of the following steps will apply to the construction of a standard B-25B. Modelers should understand that the Doolittle Raider aircraft were modified versions of the standard B model. Each of the following steps will define the differences between the standard airplane and a Doolittle aircraft where pertinent. Read each step through before starting the assembly to be sure of the features of your chosen version.

For an in-depth look at the early B-25's, we recommend Bert Kinzey's book *The B-25 Mitchell in Detail* (Formerly called *Detail & Scale*).



MODEL PAINT REFERENCE CHART*

	FEDERAL STANDARD	MODEL MASTER	HUMBROL	GUNZE SANGYO AQUEOUS	GUNZE SANGYO MR. COLOR	XTRA COLOR
ALUMINUM	17178	1781	11	8	218	X142
BURNT METAL	-	1415	-	76	61	-
OLIVE DRAB	34087	1711	155	304	304	X111
NEUTRAL GREY	36270	1725	126	306	306	X133
ZINC CHROMATE	33637	1734	81	312	312	X148
MEDIUM GREEN	34092	1764	149	_	-	X114
FLAT BLACK	37038	1749	33	12	33	X404
FLAT WHITE	37875	1768	34	11	62	X141
INSIGNIA YELLOW	33538	1708	154	329	329	X106
LIGHT BLUE	-	2126	-	-		_

*This chart is provided only as an aid to the modeler and is the closest match possible from each paint manufacturer at the time of printing. Commonly used modeling colors will be necessary to finish small details. The light blue on the nose of "Dirty Dora" was apparently a mix of insignia blue and white and therefore has no exact FS match. The comparison of available model paint to color photos of the actual airplane lead us to this recommendation.

The standard B-25B color schemes were rather simple. They consisted of Olive Drab ANA 41, FS 34087 over Neutral Grey ANA 43, FS 36270. The Doolittle raider aircraft carried these colors with a slight departure from the standard USAAF marking requirements of the time. In order to better conceal the departure source of the raiders, they were stripped of all but the basic markings. All sixteen planes were repainted before they were loaded aboard the Hornet. The planes only carried the data block, prop warning stripe, National markings and tail serial number. The "US Army" was still carried on the lower wing in <u>Insignia Blue</u> as was called for in spec. 98-24105. Note that the propellers were black overall with no Hamilton Standard logos or natural metal hubs. Also absent were the yellow prop tips. Black rubber deicer boots were retained.

STEP 1 - COCKPIT ASSEMBLY

PAINT INSTRUCTIONS

K43 - aluminum or dark green with black console and aluminum underside

J218 - dark green front, zinc chromate rear with black boxes

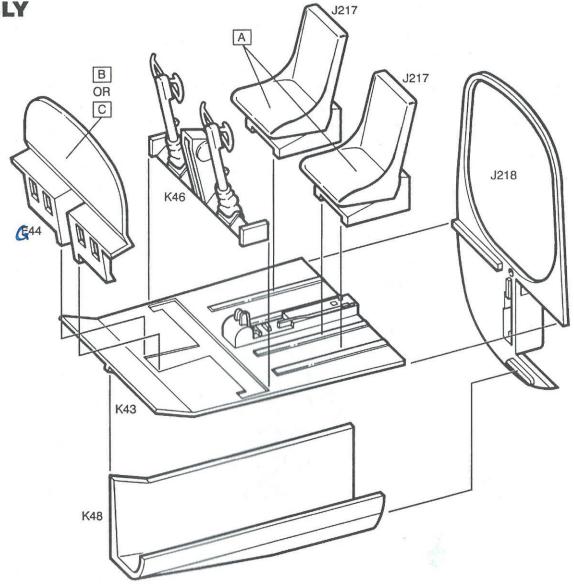
K48 - aluminum

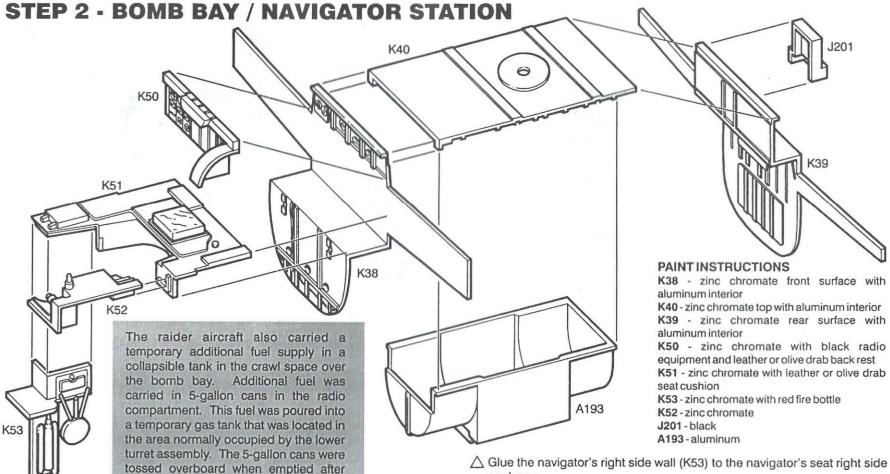
J217 - dark green

F44 - flat black with dark green or zinc chromate rudder pedals

K46 - dark green with black control wheels, canvascolored boots and black control console

- △ While the glue is drying, glue the bombardier's access tunnel (K48) to the underside of the cockpit floor. Keep all three pieces aligned with each other.
- After applying either the decal seat belts (A) or belts of your choice, glue the pilot's and copilot's seats (J217) to the cockpit floor. They may be positioned anywhere along the locating rails. The decal seat belts may be left on the backing paper, then white glued in position for a slightly thicker, more realistic appearance. NOTE: These aircraft were not normally equipped with shoulder harnesses.
- △ Carefully paint the front of the instrument panel (F44) flat black with the exception of the dial faces. After the panel is dry, apply either the face up decal (B) or face down decal (C) to the rear of the panel. If you elect to use decal (B), you will need to turn it over on the wet decal paper to pick up enough glue to insure adhesion. Be certain to align the instrument faces in the dial openings when viewed from the front. After allowing plenty of drying time, glue the completed instrument panel to the cockpit floor.
- △ Glue the control columns (K46) to the cockpit floor and the instrument panel.
- Put the cockpit assembly aside for later installation in the fuselage.





△ Glue the bomb bay front bulkhead (K38) to the bomb bay roof (K40). Keep these pieces at 90° to each other.

first being punctured so they would sink and not provide a trail back to the Hornet.

- △ Glue the bomb bay rear bulkhead (K39) to the bomb bay roof. Keep these pieces at 90° to each other.
- △ Glue the navigator's back rest (K50) to the front face of the front bomb bay bulkhead, positioning it up against the bottom edges of the vertical tabs.
- △ Glue the navigator's seat (K51) to the front of the bomb bay bulkhead.

- △ Glue the navigator's right side wall (K53) to the navigator's seat right side. as shown.
- △ Glue the navigator's compartment left side (K52) to the navigator's seat left side as shown.
- △ Glue the map case / radio transmitter (J201) onto the shelf and against the rear face of the rear bomb bay bulkhead.
- △ For a Dootlittle plane, glue the long range fuel tank (A193) to the underside of the top surface of the bomb bay. Be sure to locate over the four small locating tabs in order to position on center. Orient as shown, with the stepdown cutout to the front.
- A Place the bomb bay assembly aside for later installation in the fuselage.

STEP 3 - UPPER GUN TURRET ASSEMBLY

- △ This kit includes parts for both the upper and lower turret. If you are building the Doolittle Raider version of this kit, you will assemble the top turret only, since the lower turret was removed from all of the Raider airplanes. When the turret was removed, it was replaced by a metal panel. If you are building a B-25 that did carry the lower turret, assemble the turret as instructed in Step 4. If you are not including the lower turret, you will need to install only the radio compartment floor (J198) in Step 9, and the metal panel (J152) will be installed in Step 18.

- △ Glue the upper turret outer rim (J213) to the gun mount. Keep the upper edge level with the top of J209.
- △ Carefully snap the upper turret guns (J207) into the "hooks" at the top of the turret gun mount. If you do not glue the guns, they will elevate.
- A Route the upper turret guns through the clear upper turret blister (F70) and glue the blister to the upper turret assembly.
- The upper gun assembly may be rotated to the position of choice. The small tab on the gun opening side of the assembly will eventually locate under the fuselage halves. This assembly may be glued into position on the radio compartment floor (J198) in Step 9. If you elect to not glue the turret assembly to the radio compartment floor, the turret will rotate. Either way, we recommend that you do not put the top turret assembly in place until after the radio compartment floor has been glued into the right fuselage half in Step 9.

A word about the this famous / infamous lower turret: The lower turret was removed for two reasons. The first reason was the obvious weight savings and increased performance that resulted from its removal. The second reason for its removal was more straightforward. About the only thing this turret installation did really well was make the gunner sick. Imagine that the gunner had to kneel on a leather pad with his chest resting on another leather pad while peering into a periscope with a very narrow field of vision. Now, try that while tracking a target - and hitting it! All of this was long before video games! You now understand why there is less and less evidence of this turret on the early B-25's.

PAINT INSTRUCTIONS J209 - zinc chromate with black gun grips J211 - zinc chromate with leather seat J208 - zinc chromate with brass cartridges and olive drab collection bags J213 - zinc chromate F70 J207 - black J213

STEP 4 - LOWER GUN TURRET ASSEMBLY

The lower turret may be constructed in the extended or retracted position and may face in any direction. The gunner assumed the same position (facing to the rear) regardless of the direction the guns were pointing. The upper portion of the lower turret shaft did not rotate. For this reason, we recommend that the lower guns be constructed pointing to the rear unless you are willing to modify the lower portion of this assembly.

- △ Slide the lower turret column (J84) through the opening in the center of the radio compartment floor (J198). Do not glue yet.
- △ Slide the lower guns pivot shaft (J95) through the hole on the lower turret column. Do not glue the shaft if you wish the guns to pivot.
- A Carefully fold the lower guns (J85), place a small amount of glue in the locators on the insides of the guns and glue them to the ends of the lower guns pivot shaft.

This turret was retractable. Decide whether you want to display the turret in the extended or the retracted position. Glue the lower turret shaft to the radio compartment floor accordingly. If you are building the turret in the extended position, you need to also decide which way you want the guns to point. If the turret is to be retracted, push the turret up as far as it will go. The lower turret will still extend below the fuselage slightly. The guns must point to the rear so that the gun barrels will locate in the fuselage troughs. Remember, the top portion of the lower turret shaft did not rotate with the turret, and the gunner always faced toward the rear of the plane regardless of the position of the guns. All of the remaining pieces in the lower turret. assembly are located toward the front of the plane as shown in the drawings.

- △ Glue the lower turret chest pad support bracket (J97) to the two locating holes on the lower turret column and to the rim of the opening on the radio compartment floor.
- \triangle Glue the lower turret chest pad (J96) to the lower turret chest pad support bracket.
- \triangle Put the gun turret assembly aside for later installation.

PAINT INSTRUCTIONS

J84, J198 - zinc chromate

J95 - do not paint

J85 - black

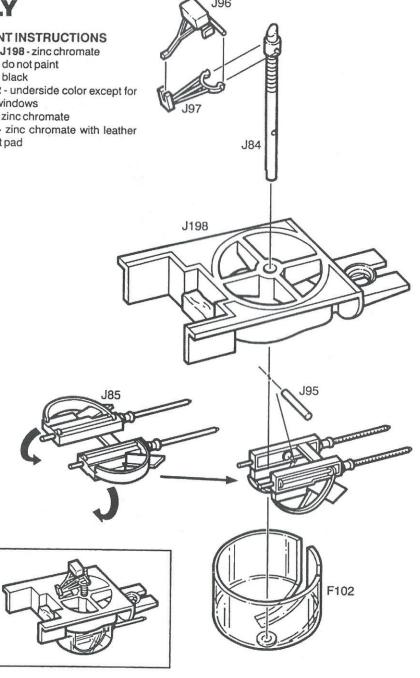
F102 - underside color except for

two windows

J97 - zinc chromate

J96 - zinc chromate with leather

chest pad



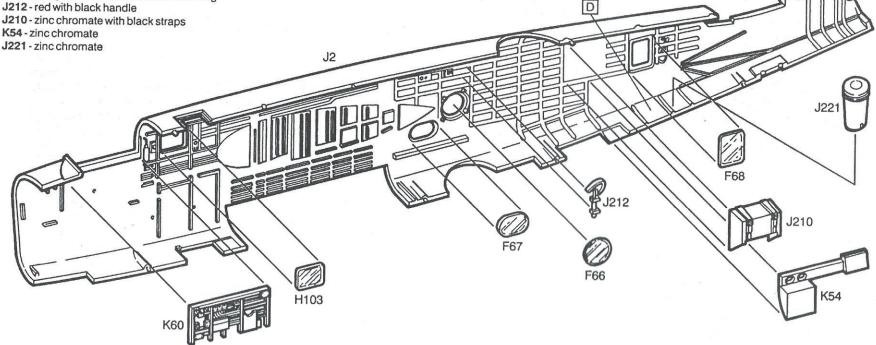
STEP 5 - RIGHT FUSELAGE ASSEMBLY

PAINT INSTRUCTIONS

J2 - zinc chromate with dark green cockpit area and aluminum bomb bay

K60 - dark green with black boxes and wiring

K54 - zinc chromate



Note: The guilted sound insulation pads on the interior of the fuselage were the same color as the metal surfaces beneath them. Therefore, they were dull dark green in the pilot's cockpit and nose and zinc chromate in other compartments. This quilting had a matte to semi-gloss surface.

Carefully glue the clear windows into the fuselage halves. You may elect to use a non-crazing glue such as common white glue or clear gloss acrylic paint to avoid smearing the clear parts.

△ Starting at the front, glue the navigator's side window (H103), the oval lower radio compartment window (F67), the upper round radio compartment window (F66) and rear rectangular window (F68) into the openings in the right fuselage half (J2).

- △ Glue the pilot's compartment right sidewall (K60) to the right fuselage half.
- \triangle Glue the fire escape axe (J212) to the right fuselage half. Position above and to the rear of the round side window and against the vertical fuselage rib.
- △ Glue the camera storage compartment (J210) to the right fuselage side.
- △ Glue the camera compartment sidewall (K54) to the right fuselage half.
- △ Glue the chemical toilet (J221) to the locator as shown on the right fuselage half. Make certain this part is aligned vertically. Notice that the lid is closed. They must be expecting WAAF's to visit.
- reading material.

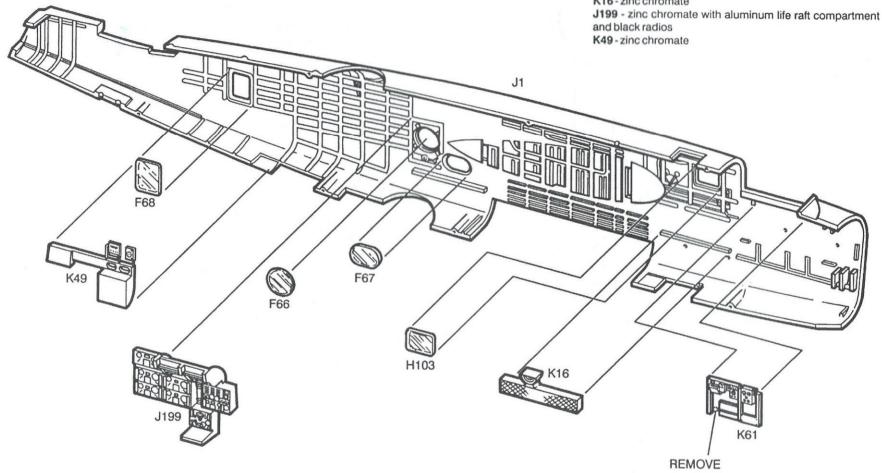
STEP 6 - LEFT FUSELAGE ASSEMBLY

PAINT INSTRUCTIONS J1 - zinc chromate with dark green cockpit area and

aluminum bomb bay

K61 - dark green with black boxes

K16 - zinc chromate



△ Starting at the front, glue the navigator's side window (H103), the oval lower radio compartment window (F67), the upper round radio compartment window (F66) and rear rectangular window (F68) into the openings in the left fuselage half (J1).

 \triangle Glue the pilot's compartment left sidewall (K61) to the left fuselage half.

△ Glue the navigator's compartment ventilator duct (K16) to the left fuselage half.

△ Glue the radio equipment / life raft (J199) to the left fuselage half.

△ Glue the camera compartment sidewall (K49) to the left fuselage half.

STEP 7 - NOSE ASSEMBLY

△ Glue the bombardier's compartment chin window (F106) into the opening on the underside of the bombardier's nose (K19).

△ Glue the left bombardier's side panel (J219) to the left side of the bombardier's nose. Line up flush with the top edge (lower level of stepdown) of the left side of the nose.

△ Glue the bombardier's floor (K20) to the bombardier's nose, being careful to slide the floor <u>underneath</u> the left sidewall as far as possible. This is necessary in order to allow correct placement of the right sidewall.

△ Glue the bombardier's compartment right sidewall (J220) to the inside of the bombardier's nose.

Carefully glue the bombardier's canopy (F101) to the bombardier's nose. You will find it easier to glue the left side first, let it dry and then glue the right side.

DRILL HOLE

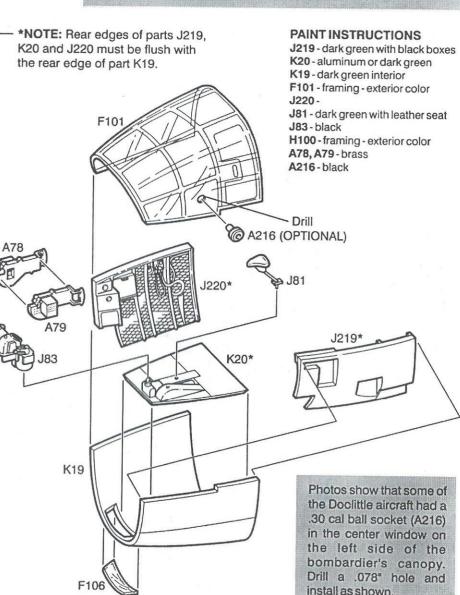
Due to the very low level nature of the Doolittle raid, these aircraft did not carry the standard Norden bombsight. They used a very crude but effective homemade device that allowed for accurate low level bombing. However, if you are building a standard B-25B, glue the Norden bomb sight (J83) to the pin at the front of the bombardier's floor. Modelers need not put a cover on it, as it is no longer classified.

△ Glue the bombardier's bicycle seat (J81) to the bombardier's floor.

△ Glue the left .30 cal machine gun side (A79) to the .30 cal machine gun (A78).

△ Installation of the .30 cal machine gun in the nose will require the drilling of a .078 (5/64 or 2mm) hole in the centerof the area indicated in the bombardier's nose piece (H100). Insert and carefully glue a flex gun ball socket (A216) into this hole. When this has had ample drying time, insert and glue the .30 cal machine gun into the ball socket.

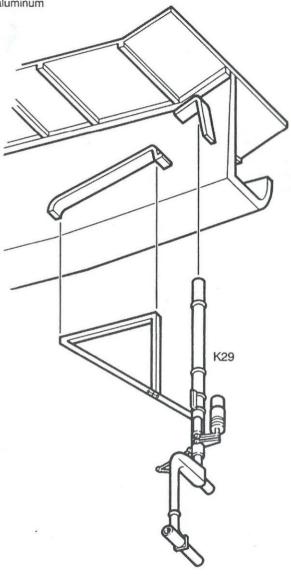
 Now glue this nose piece to the bombardier's canopy and the bombardier's nose. If you are constructing a standard B-25B, determine the correct nose configuration for your particular choice. Parts are provided for all options (guns, gun ball sockets, Norden bombsight, etc.). This step is directed toward a Doolittle Raider configuration.



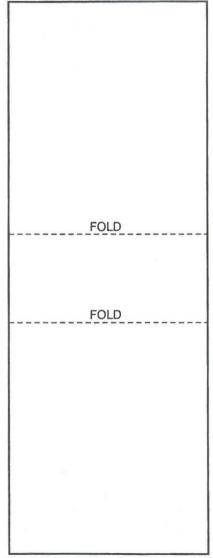
STEP 8 - NOSE GEAR

PAINT INSTRUCTIONS

K29 - neutral grey or aluminum with chrome piston

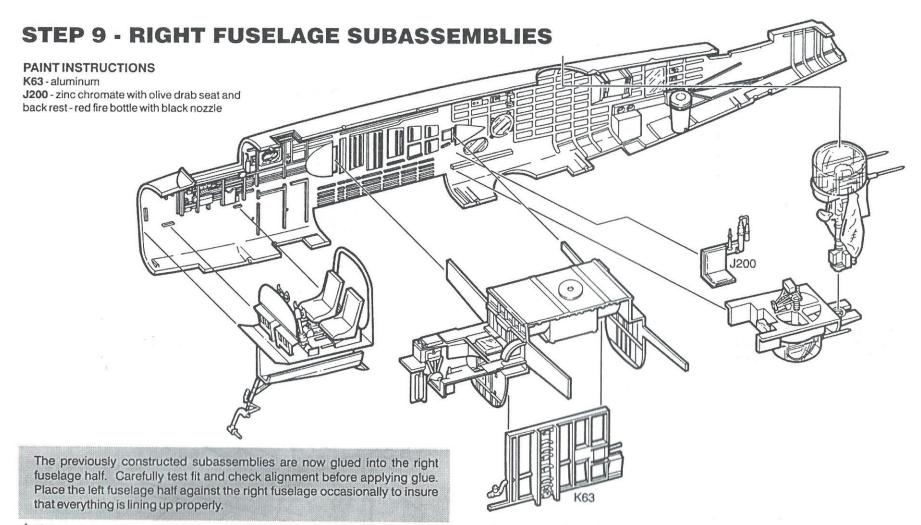


△ Carefully glue the nose gear leg (K29) up into the locators on the side of the bombardier's tunnel. The nose gear is delicate and should be handled with relative care. It is more than adequate to support the nose and is to scale. Just pay a little extra attention to it while handling the airframe once it is glued in place. You may wish to use the template shown below to create a cardboard "guard" and place around it.



DUPLICATE THIS TEMPLATE IN THIN CARDBOARD AND TAPE IN PLACE OVER NOSE GEAR.

TEMPLATE FOR NOSE GEAR GUARD



△ Glue the bomb bay assembly from Step 2 into the right fuselage. It is
important that this assembly be placed in the fuselage <u>before</u> the cockpit
assembly is installed to avoid interferences.

△ Glue the cockpit assembly from Step 1 into the right fuselage half.

△ After the bomb bay assembly has been allowed to dry, the right side bomb rack (K63) is glued up into the space between the front and rear bomb bay bulkheads.

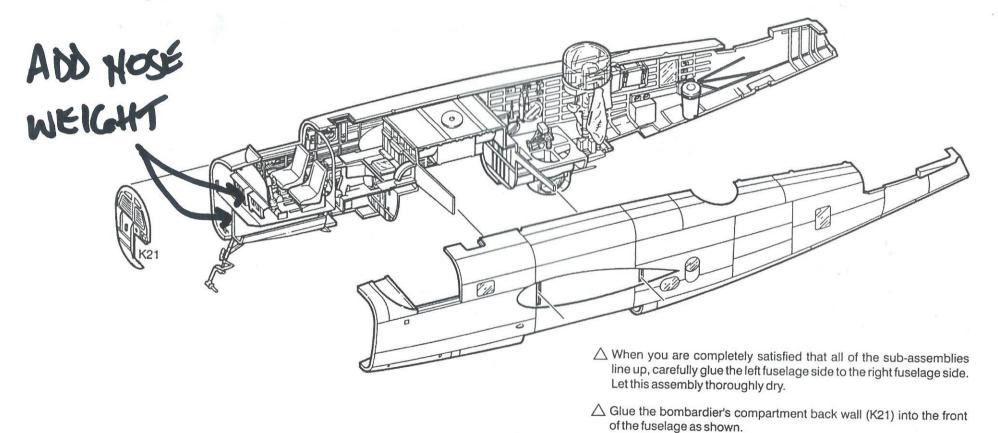
 lower turret, glue only the radio compartment floor (J198) to the right fuselage half and to the rear face of the rear bomb bay bulkhead.

△ Place the upper turret assembly from Step 3 in place, locating the bottom of the column into the locating hole in the rear of the radio compartment floor. The upper blister fits into the upper turret hole, with the small tab at the rear under the guns locating under the fuselage surface. If you don't intend for the upper turret to rotate, you may glue in place; otherwise, leave it free to move.

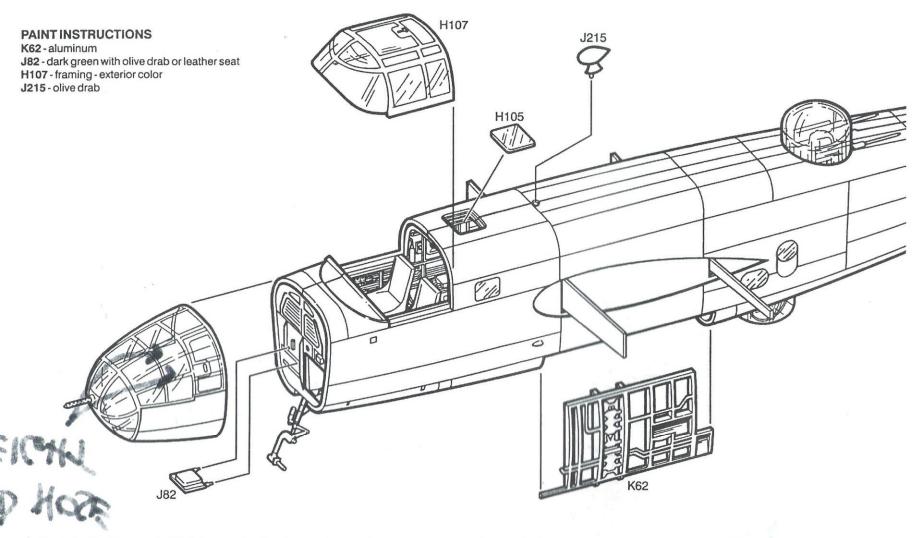
 \triangle Glue the radio compartment right hand seat (J200) to the radio compartment floor and the right fuselage half.

STEP 10 - LEFT FUSELAGE ATTACHMENT

PAINT INSTRUCTIONS K21 - dark green

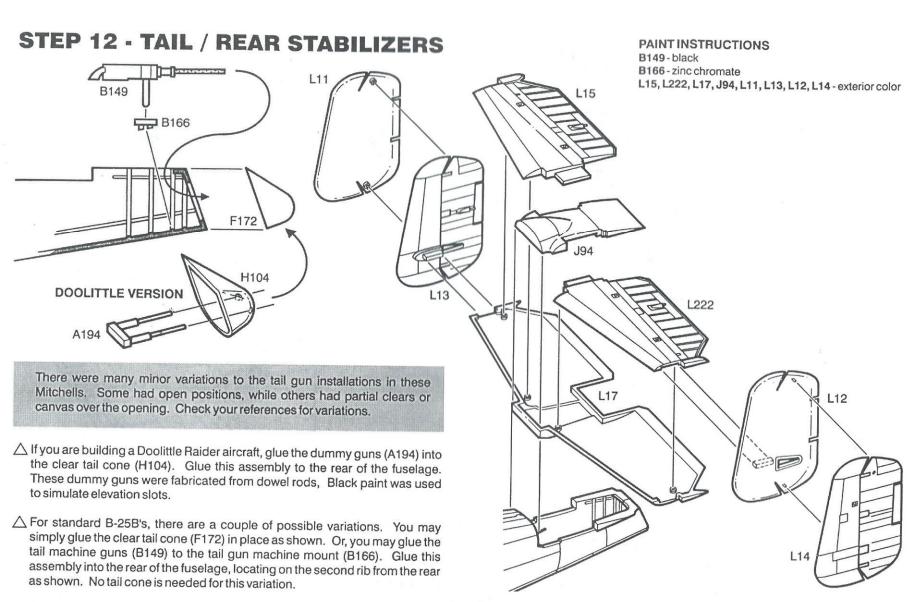


STEP 11 - FUSELAGE DETAILS



- The left side bomb rack (K62) is now glued up into the bomb bay between the front and rear bomb bay bulkheads.
- △ Glue the bombardier's folding seat (J82) to the two holes in the bombardier's compartment back wall.
- △ Carefully line up and glue the nose assembly from Step 7 to the fuselage.

- △ Carefully glue the cockpit canopy (H107) to the top of the fuselage.
- \triangle Glue the navigator's flat top window (H105) to the top of the fuselage.
- \triangle Glue the ADF housing (J215) to the top of the fuselage.



- △ Glue the right horizontal stabilizer top (L15) and the left horizontal stabilizer top (L222) to the horizontal stabilizer bottom (L17).
- △ Glue the tail assembly to the completed fuselage assembly.
- △ Glue the opaque tail center fairing (J94) into the opening on the top of the tail.

 Keep the tail assembly level when viewed from the front and rear.
- \triangle Glue the right rudder right side (L11) to the right rudder left side (L13).
- \triangle Glue the left rudder right side (L12) to the left rudder left side (L14).
- △ Glue the rudder assemblies to the horizontal stabilizer assembly. Be certain
 that the rudders are vertical to the horizontal stabilizer and allow to dry
 thoroughly.

STEP 13 - WING ASSEMBLIES

△ Open the two holes in the underside of the upper right wing top (M3) just ahead of the oil cooler exhaust vents.

△ Glue the upper left wing (N5) to the lower left wing (N6).

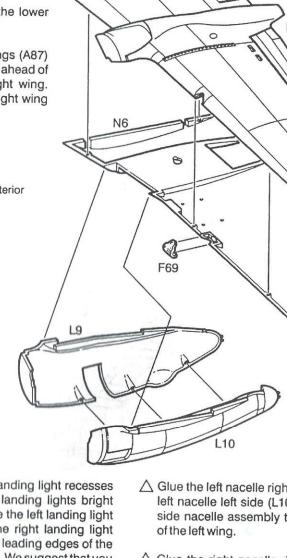
△ Glue the upper right wing (M3) to the lower right wing (M4).

△ Glue the two oil cooler exhaust fairings (A87) into the previously opened holes just ahead of the two slots on the top of the right wing. These pieces were present on the right wing only.

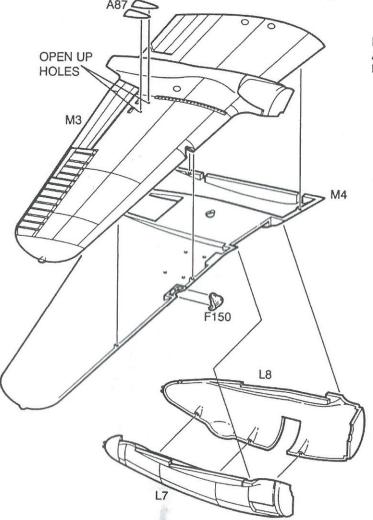


A87 - exterior color

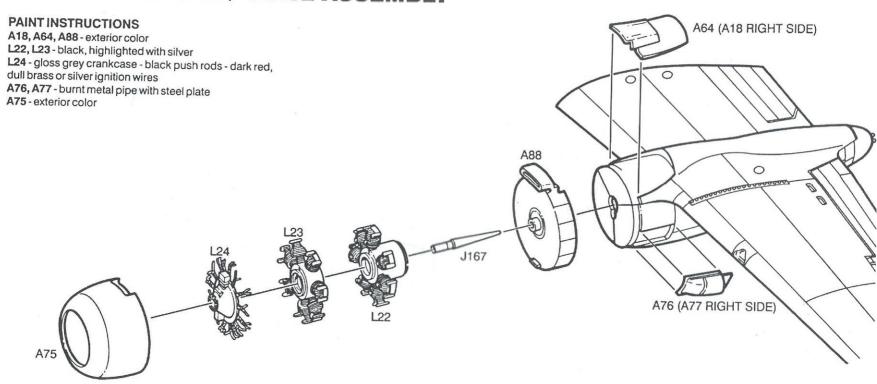
L7, L8, L9, L10 - aluminum interior



- △ After painting the landing light recesses flat black and the landing lights bright silver, carefully glue the left landing light cover (F69) and the right landing light cover (F150) to the leading edges of the left and right wings. We suggest that you use white glue that has been tinted with black ink or a water-based black paint to glue these parts. This method will make the lens appear to be part of the wing rather than a "glued on" part.
- △ Glue the left nacelle right side (L9) to the left nacelle left side (L10). Glue the left side nacelle assembly to the underside
- △ Glue the right nacelle right side (L7) to the right nacelle left side (L8). Glue the right side nacelle assembly to the underside of the right wing.

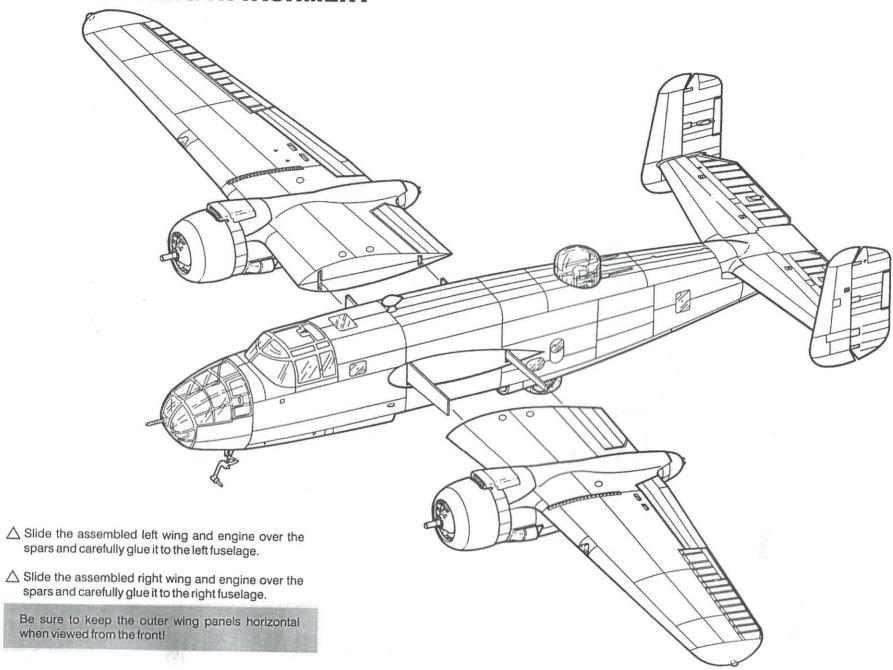


STEP 14 - ENGINE / COWL ASSEMBLY

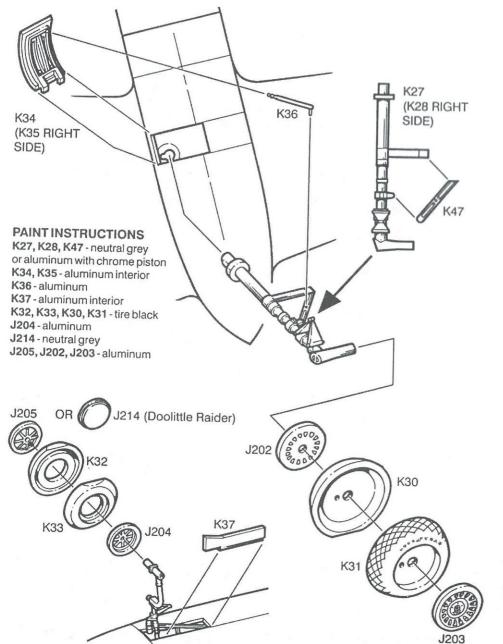


- \triangle Glue the left carb air scoop (A64) to the top of the left wing and cowl ring.
- \triangle Glue the right carb air scoop (A18) to the top of the right wing and cowl ring.
- \triangle Glue the engine back row (L22) to the engine front row (L23). Make two sets.
- \triangle Glue two engine front cases (L24) to the fronts of the engine cylinder assemblies.
- \triangle Glue the two cowls (A75) onto the cowl rings.
- \triangle Glue the left long exhaust stack (A76) to the left engine nacelle.
- △ Glue the right long exhaust stack (A77) to the right engine nacelle.

STEP 15 - WING ATTACHMENT



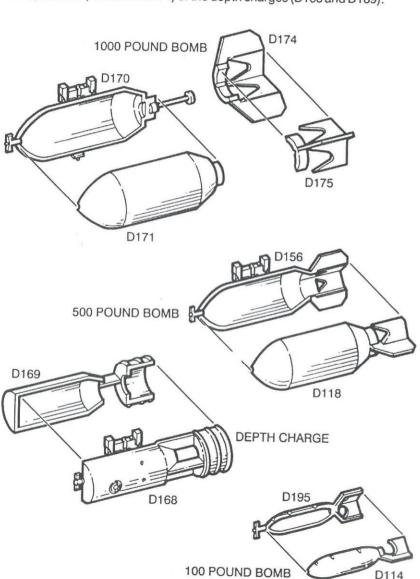
STEP 16 - LANDING GEAR ASSEMBLIES

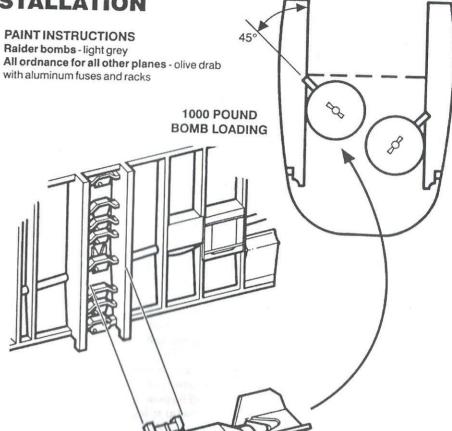


- △ <u>Carefully</u> remove the landing gear legs (K27 and K28) from the tree without damaging the two tow rings at the bottom of the legs. Handle with care.
- △ Glue one of the main landing gear leg braces (K47) to the left main landing gear leg (K27). Glue the other main landing gear leg brace (K47) to the right main landing gear leg (K28).
- riangle Glue the left main landing gear door (K34) to the left engine nacelle.
- While the glue is drying, glue a main landing gear door strut (K36) forward of the landing gear. The outside end of the brace glues to the small tab on the forward corner of the door, with the pin on the inside end fitting into the hole on the left landing gear leg brace.
- \triangle Glue the nose gear door (K37) to the bottom of the fuselage.
- \triangle Glue the nose outer tire half (K32) to the nose inner tire half (K33).
- \triangle Glue the nose inner wheel (J204) to the tire.
- △ Glue the solid outer wheel cover (J214) to the nose tire for a Doolittle Raider. The slotted wheel cover (J205) is provided as an optional part.
- △ Glue main tire halves (K30) together. Repeat for tire halves (K31).
- \triangle Glue an inner main wheel (J202) to each main tire assembly.
- \triangle Glue an outer main wheel (J203) to each main tire assembly.

STEP 17 - ORDNANCE ASSEMBLY/INSTALLATION

A variety of ordnance is provided for this kit. The ordnance is assembled in normal left and right halves. You may use the 100lb. bombs (D114 and D195), the 500lb. bombs (D118 and D156), the 1000lb. bombs (D171 and D170) and fins (D175 and D174) or the depth charges (D168 and D169).



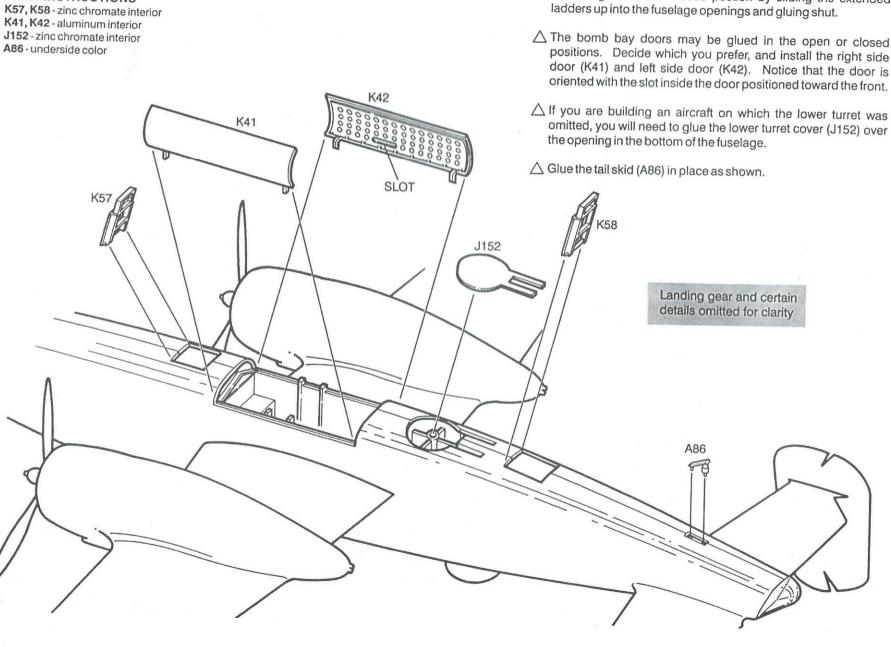


If you are building a Doolittle Raider, you will need to install four 500lb. bombs in the bomb bay, two on the left and two on the right. For any other B-25B, you may use any of the ordnance appropriate to the subject you are building. All ordnance is installed in the plane by simply gluing it to the two raised vertical tracks in the bomb rack, centering the rack that is molded as part of the ordnance between those tracks. The ordnance rests against the track at a 45° angle from vertical as illustrated. If you install the 1000lb bombs, only two may be utilized and they must be staggered, right to left, one slightly above the other. Remember that the maximum load was 2000lbs.

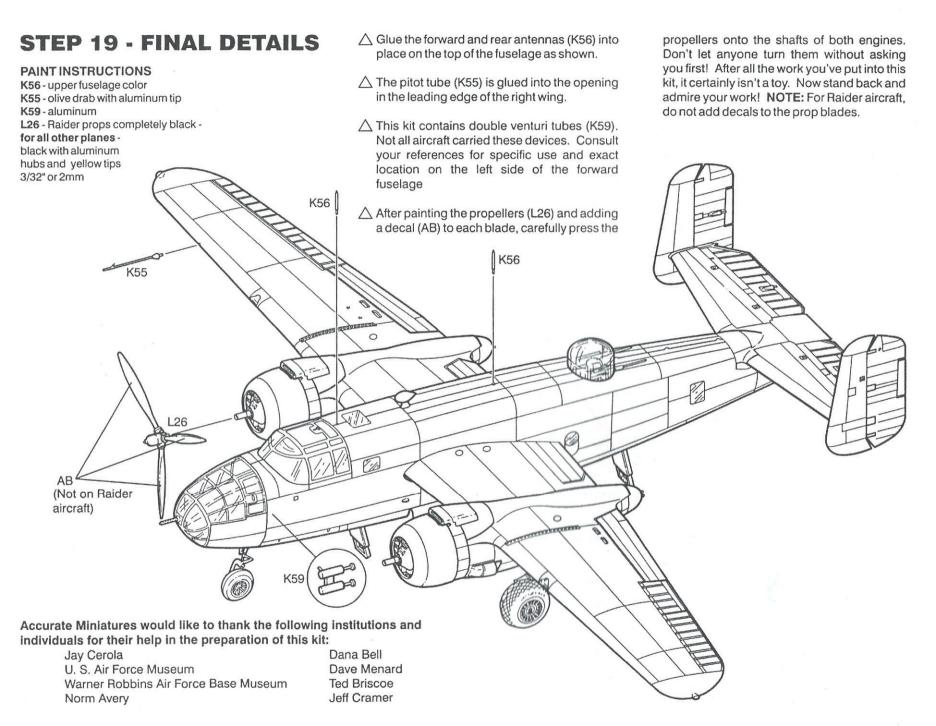
STEP 18 - UNDERSIDE DETAILS

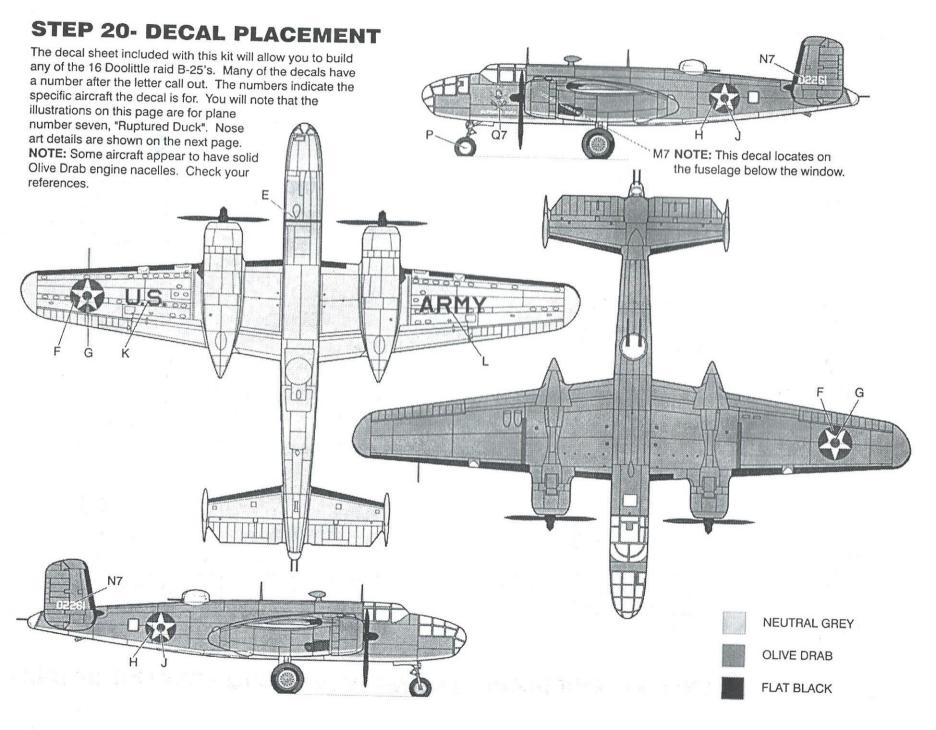
PAINT INSTRUCTIONS

K57, K58 - zinc chromate interior

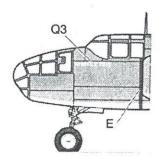


△ Glue the front crew entry door (K57) and rear crew entry door (K58) to the crew entry openings as shown. These doors may also be glued in the closed postion by sliding the extended



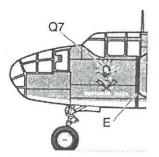


STEP 20 (cont'd) - DECAL PLACEMENT - NOSE ART DETAILS



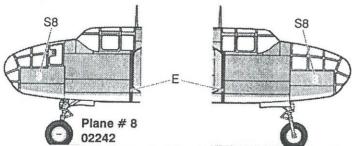
Plane # 3 "WHISKEY PETE" 02270

This marking is loosely based on sketches produced by surviving raiders. Photographic evidence to confirm this marking has not been discovered.

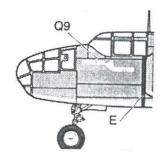


Plane # 7 "RUPTURED DUCK" 02261

This marking is based on artwork provided by the late Ted Lawson and his widow. It differs from that depicted in the movie "Thirty Seconds Over Tokyo".

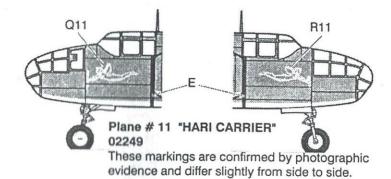


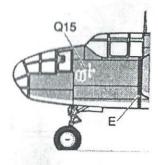
A photograph of the right side of this airplane shows the number 3. It is likely that this marking existed before the assignment of this airplane for the Tokyo raid. It is possible that this marking would also appear on the left side.



Plane # 9 "WHIRLING DERVISH" 02303

This marking is loosely based on sketches produced by surviving raiders. Photographic evidence to confirm this marking has not been discovered.





Plane # 15 "TNT" 02267

This marking is loosely based on sketches produced by surviving raiders. Photographic evidence to confirm this marking has not been discovered.

