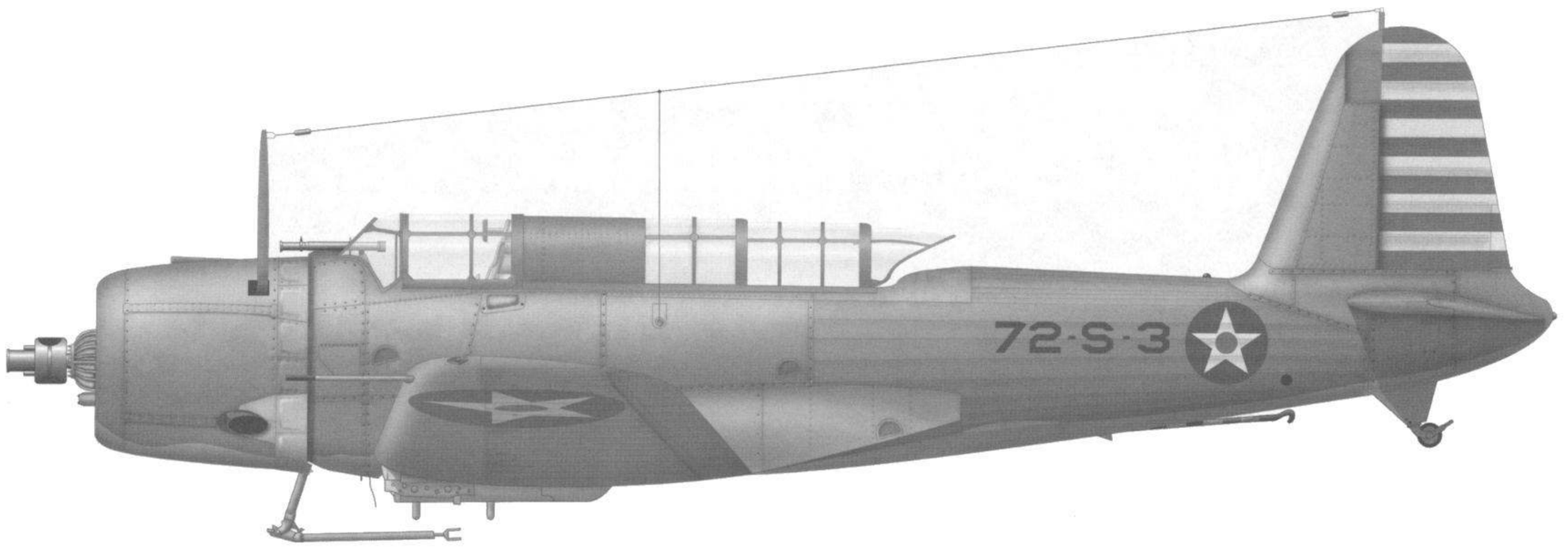
480201

SB2U-2 VINDICATOR

ACCURATE® MINIATURES



480201

SB2U-2 VINDICATOR

The SB2U-1 was the first operational monoplane design by Vought, and represented a major paradigm shift away from biplanes in use by the Navy up to that point.The SB2U-1 was a fabric covered truss design, with the exception of the wing leading edges and the engine cowl, which were metal covered. The production SB2U-1 differed from the prototype. The aircraft had the 700-hp Pratt & Whitney engine replaced by a 825-hp Pratt & Whitney R-1535-96 radial and the cowling was changed to have a combined oil cooler/carburetor air intake installed high on the starboard side of the cowling. The exhaust was relocated from the underside of the cowling to a location somewhat higher and to the rear. The radio mast was repositioned from the fuselage spine between the cockpits to a position on the port side of the nose in front of the pilot's cockpit.

The SB2U-1 was armed with a forward-firing Browning .30-caliber machine gun mounted in the starboard wing, outside of the propeller arc, and a second Browning .30-caliber machine gun in the rear cockpit on a flexible ring mount. The offensive bomb load consisted of a single 1,000-pound bomb carried on a fuselage centerline rack, or two 500-pound bombs carried on racks mounted on the wing, outboard of the landing gear. The centerline bomb could be replaced with a 50-gallon auxiliary fuel tank to extend the aircraft's range for the scouting role.

The Navy placed a follow-om contract with Vought for fifty-eight additional Vindicators in January, 1938. The Contract specified updates to the some of the aircraft's internal components, however, externally the SB2U-2 was identical in every way to the SB2U-1. The first production SB2U-2 Vindicator went into service with Scouting 72 (VS-72) in April,f 1941.

When Pearl Harbor was attacked, The USS Yorktown (CV-3), the USS Wasp (CV-7), and the USS Ranger (CV-4), were all on duty in the Atlantic Ocean. The Yorktown was recalled to the Pacific, and the Ranger remained on station in the Atlantic on convoy and anti-submarine patrol until the summer of 1942. By the time of Operation Torch in November, 1942 the Ranger had replaced all of her Vindicators with SBD-3 Dauntlesses. In April, 1942 the Wasp was assigned to Force W and sent to Gibralter with a deck load of Spitfires destined to join the besieged British outpost at Malta.

Collins-Habovick LLC wishes to thank the following institutions and individuals for their help in the preperation of this kit:

The National Museum of Naval Aviation, Bill Johnson, Director of Operations, and Bill Hardmann, U.S. Navy - retired, for their assistance in the development of this 1/48th scale replica of the Vought "Vindicator".

Collins-Habovick LLC would also like to thank Clark Macomber, Larry Fuller, Mark Mendes, Rodney Timms, Natasha Yushkevich, for their work in the design of this kit.

Dave Pepper, Steven Murphy, Tim Treadway, Richard Maxon, Wayne Davidson and Scott Denson were instrumental in helping us with quality control.

In order to help you paint your model correctly, we have provided a list of color recommendations. These colors are cross-referenced to the Federal Standrad (FS) numbers wherever possible. Many model paint companies match their products to this system, and you may choose to match your favorite paint to these numbers, Your local hobby retailer may also be of assistance in helping you select the proper paint for this kit.

Model Paint Reference Chart*

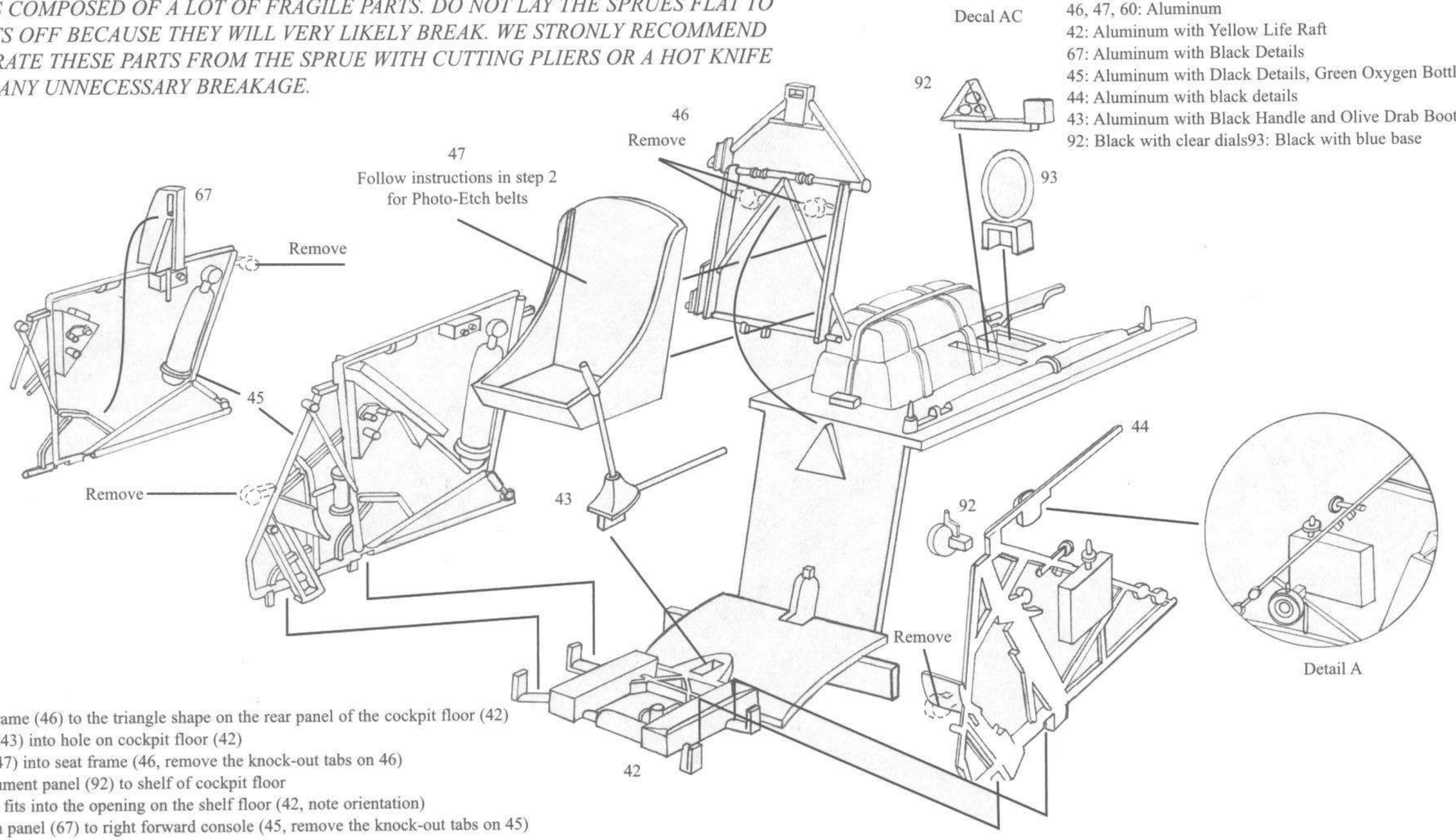
FS/Color	Model Master Enamel	Floquil Poly S Acrylics	Tamiya Acrylics	Gunze Sangyo Acrylics	Vallejo Model Air	Revell Germany	Modelflex Acrylics
FS 17038 Flat Black	1749	10	XF1	H33	073	32108	16-119
FS 37875 Flat White	1768	11	XF2	H62	001	32105	16-120
Non-Specular Blue Gray	2055	505088	N/A	H42	005	32179	N/A
Non-Specular Light Gray	1730	N/A	XF14	H338	051	32176	N/A
FS 34087 Olive Drab	1711	500052	XF62	H034	043	32146	16-96
Wood	1735	500828	N/A	N/A	077	32382	N/A
Aluminum	1781	01995	XF56	H8	062	32199	16-32
Gun Metal	1795	501992	XF10	H28	072	32191	N/A
Burnt Metal	1415	N/A	N/A	H61	N/A	N/A	N/A
Copper	1151	N/A	XF6	N/A	068	32193	N/A

*This chart is provided only as a reference to the modeler, and is the closest match possible from paint manufacturer at the time of printing. Commonly used modeling colors will be necessary to finish small details.

Step 1: Pilot's Cockpit Assembly

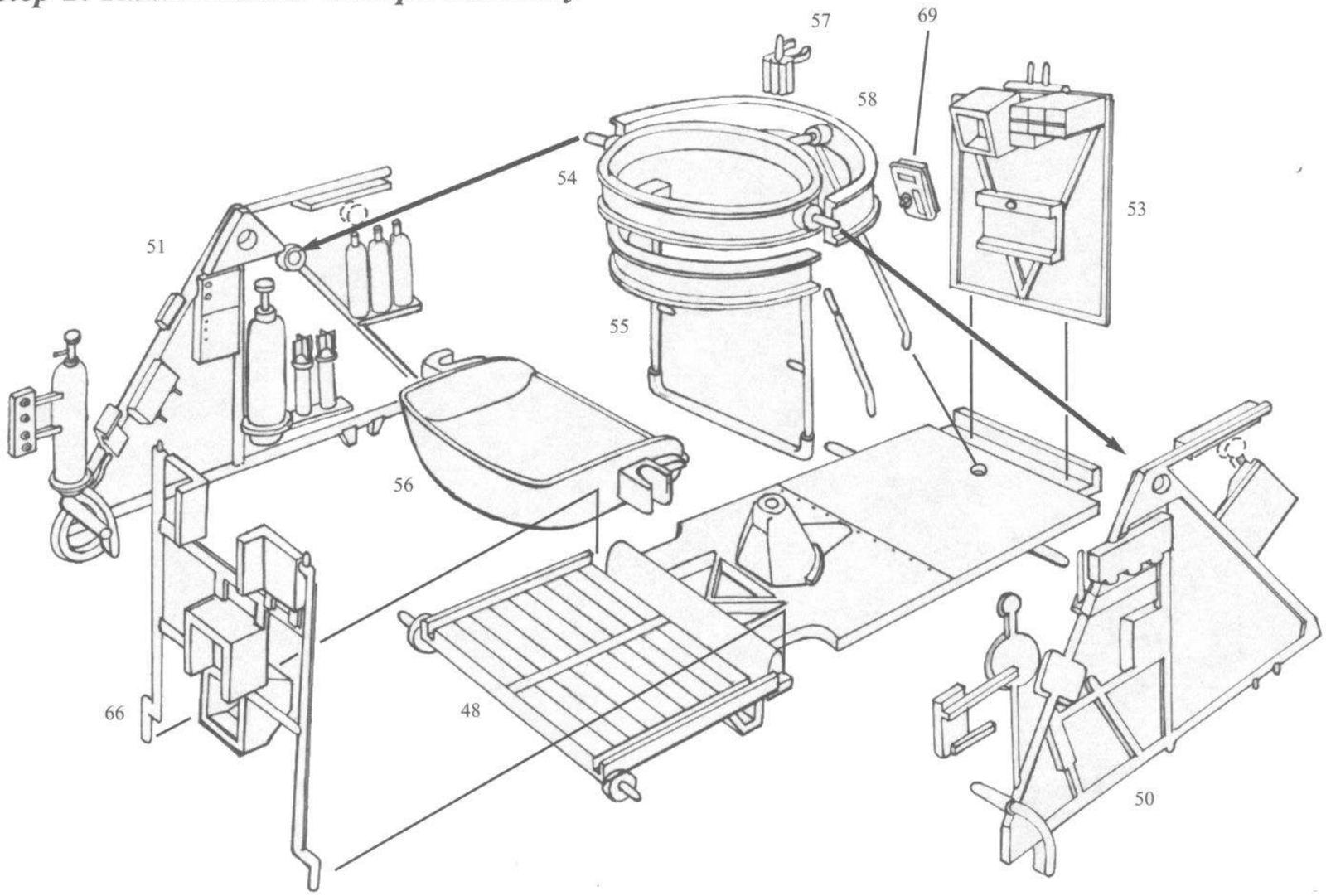
THE COCKPIT IS COMPOSED OF A LOT OF FRAGILE PARTS. DO NOT LAY THE SPRUES FLAT TO CUT THESE PARTS OFF BECAUSE THEY WILL VERY LIKELY BREAK. WE STRONLY RECOMMEND THAT YOU SEPERATE THESE PARTS FROM THE SPRUE WITH CUTTING PLIERS OR A HOT KNIFE SO AS TO AVOID ANY UNNECESSARY BREAKAGE.

Painting Instructions:
46, 47, 60: Aluminum
42: Aluminum with Yellow Life Raft
67: Aluminum with Black Details
45: Aluminum with Dlack Details, Green Oxygen Bottle
44: Aluminum with black details
43: Aluminum with Black Handle and Olive Drab Boot
92: Black with clear dials93: Black with blue base

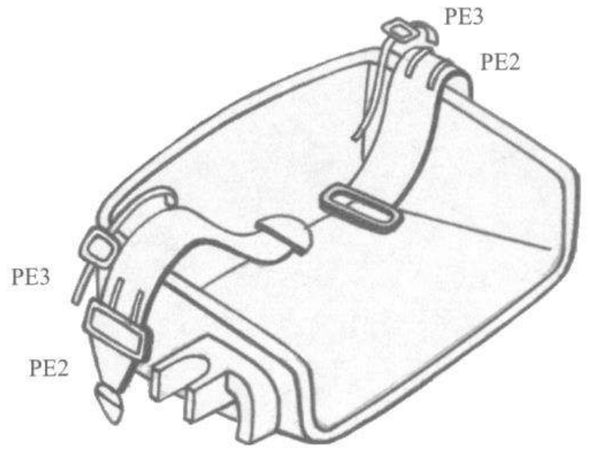


1-1. Cement the seat frame (46) to the triangle shape on the rear panel of the cockpit floor (42)
1-2. Cement the stick (43) into hole on cockpit floor (42)
1-3. Cement the seat (47) into seat frame (46, remove the knock-out tabs on 46)
1-4. Cement rear instrument panel (92) to shelf of cockpit floor
1-5. RDF antenna (93) fits into the opening on the shelf floor (42, note orientation)
1-6. Cement the switch panel (67) to right forward console (45, remove the knock-out tabs on 45)
1-7. Cement the right forward (45) console onto the cockpit floor
1-8. Cement the trim wheel (60) onto the left forward console (44, remove the knock-out tabs on 45) (see detail A)
1-9. Cement the left forward console (44) onto cockpit floor

Step 2: Radio/Gunner Cockpit Assembly



Painting Instructions:
48: 50, 52, 56, 57, 58; Aluminum
49: Aluminum with Black Handle
66: Aluminum Frame with Black Radios
53: Aluminum with Black Radios
51: Aluminum, including Oxygen Bottle,
Wood Colored Flares, Aluminum Details on Flares
69: Black with silver details

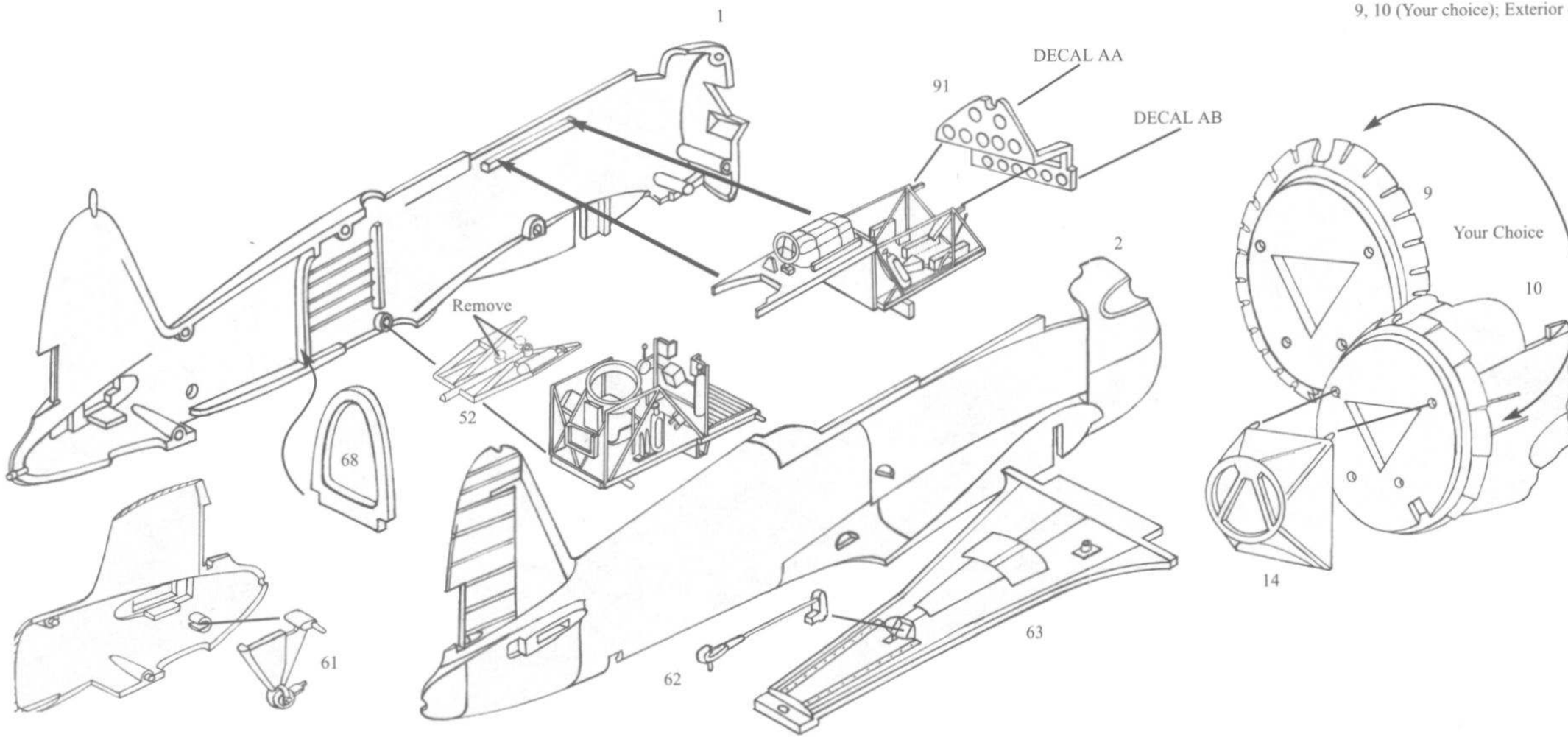


2-1. Cement the stick (49) into the hole in floor (48)
2-2. Cement the forward radios (66) to notches just forward of the control stick
2-3 Cement the switch panel (69) to the gunner's rear armor plate (53)
2-4. Cement the gunner's armor plate (53) to ledge on rear of floor. Center on the notch
2-5. Cement the right rear console frame (51) on the right side of the floor (48). Align the notches on the frame with the pin on the floor.
2-6. Cement the left rear console frame (50) on the right side of the floor (48). Align the notches on the frame with the pin on the floor.

2-7. Cement gunner's seat (56) into the seat support (55). The seat goes just below the pins. Review the illustration for placement of the photo-etch lap belt.
2-8 Cement gun ring (54) on to the seat support. The pin on the ring goes rearward.
2-9. Cement the gun mount (57) onto the gun ring
2-10. The gun ring assembly pins snap into either side of the rear cockpit, and into the hole at the rear of the cockpit floor.

Step 3: Fuselage

Painting Instructions:
Fuselage interiors: Aluminum
14, 68; Aluminum
9, 10 (Your choice); Exterior color



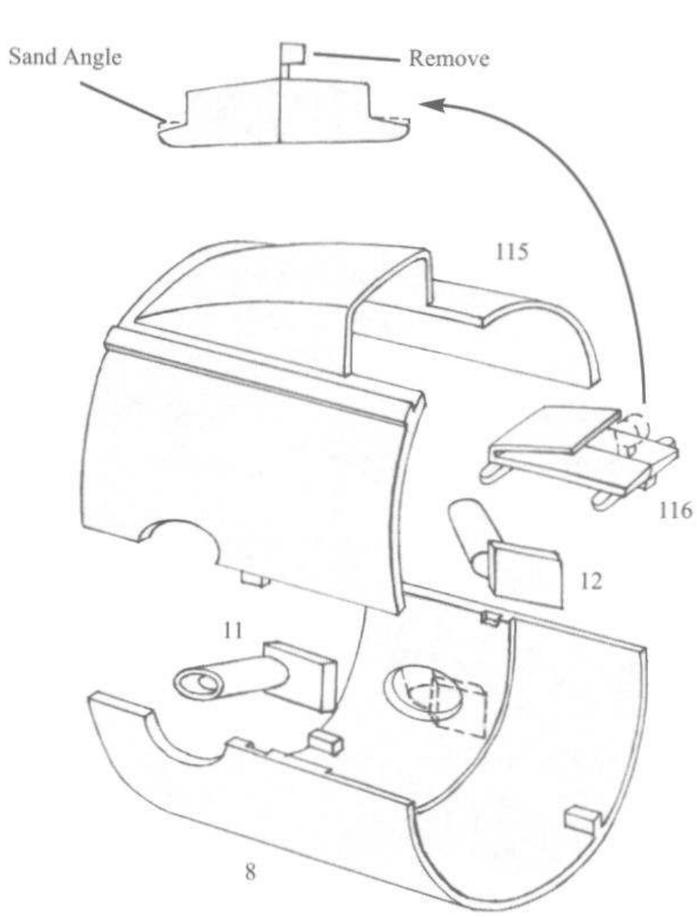
3-1 Cemenr the instrument panel (91) to the forward cockpit assembly
*NOTE: Add the decal BEFORE completing step 3-2
3-2. Cement the forward cockpit assembly into the left fuselage half (1)
3-3: Cement the rear frame (52) to the top of the complete rear cockpit assembly (remove the knock-out tabs)
3-4. Install the rear cockpit, cementing the tabs on the forward radios to the underside of the forward cockpit.
*Locator pins on the rear cockpit floor will insert into corresponding holes in the fuselage halves
3-4. The rear bulkhead (68) aligns to the rear of the raised ribs in the fuselage.

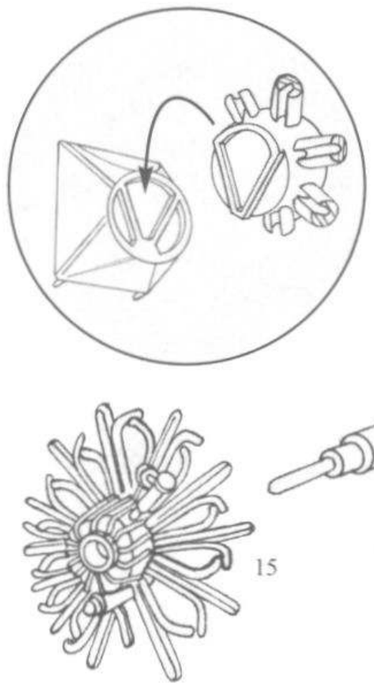
3-5. Cement the tail wheel (61) into the hole in the rear of the fuselage
3-6. Cement the right fuselage half (2) to the left fuselage half (1)
3-7. Install the arresting hook (62) into the fuselage bottom (63) and hook into place
3-8. Cement the fuselage bottom into the fuselage
*NOTE :This kit has optional cowl flaps representing opened (9) or closed (10)
3-9. Cement cowl flaps (9 or10) to assembled fuselage
3-10. Cement engine mount (14) to cowl ring

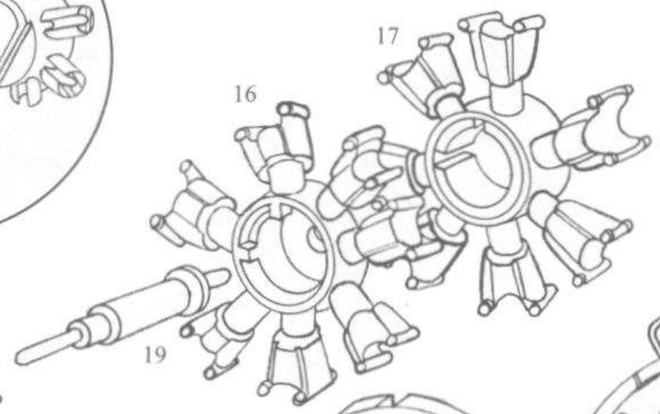
Step 4: Engine/Cowl assembly

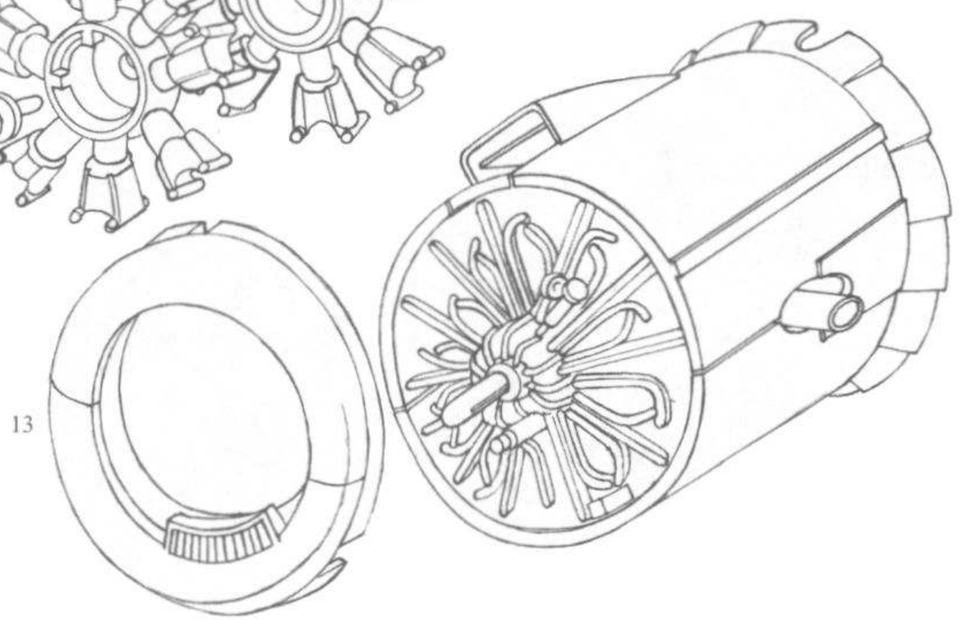
THE ENGINE HAS BEEN DESIGNED TO PERCISE SCALE, AND FITS INTO THE COWL WITH VERY LITTLE ROOM TO SPARE. CARE WILL NEEDED TO REMOVE ANY EXCESS PLASTIC FROM THE CYLENDERS AND CRANKCASE WIRING HARNESS TO FACILITATE A PROPER FIT.

Painting Instructions:
8, 9 or 10, 13, 115, 116; Exterior Color
11, 12; Rust; Burnt Metal
16,17; Aluminum
15; Gray with Black Push Rods and Copper Wiring Harness







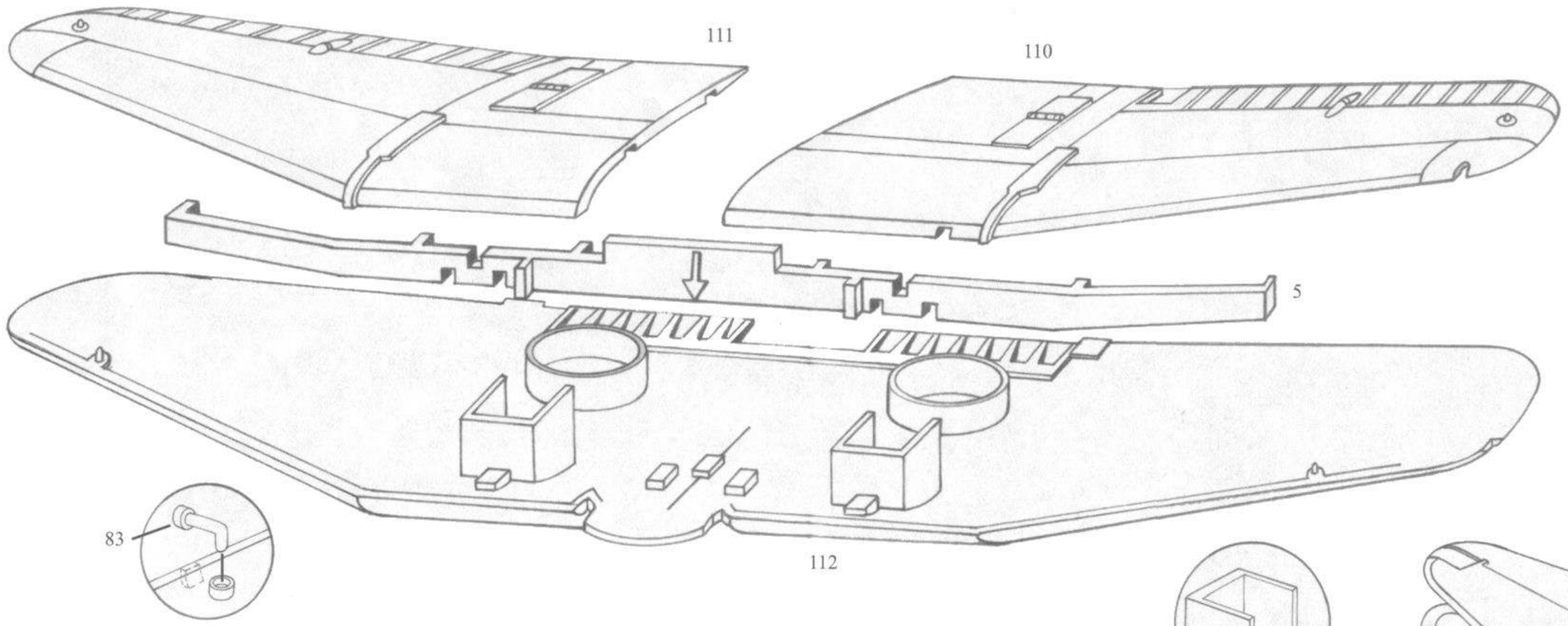


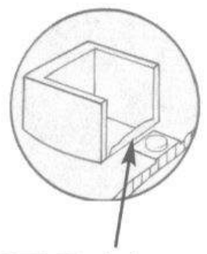
4-1. Cement air duct (116) to cowling top (115). Sand the top surface of the mounting tabs so that 116 fits flush to 115
4-2. Cement cowling top (115) to cowling bottom (8)
4-3. Install exhaust pipes (11&12) into the openings of the cowl halves (115, 8)
4-4. Cement the complete cowl to the cowl flap (See step three)

4-5. Cement forward cylinder bank (16) to rear cylinder bank (17)
4-6. Slide propeller shaft (19) through hole on crankcase (15) DO NOT GLUE
4-7. Cement crank case to forward cylinder bank
4-8. Slide the engine assembly into the cowl assembly, locating to the engine mounts.
4-9. Cement cowl ring (13) to cowl assembly.

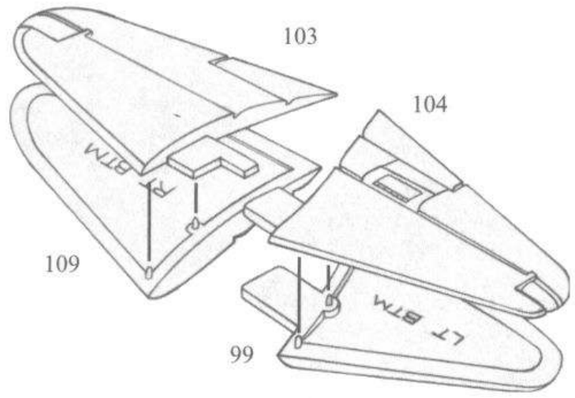
Step 5: Wings/Horizontal Stabilizers

Painting Instructions:
5, Main Wing Interior; Matte White
83; Gun MetalWing and Horizontal Stabilizers; Exterior color





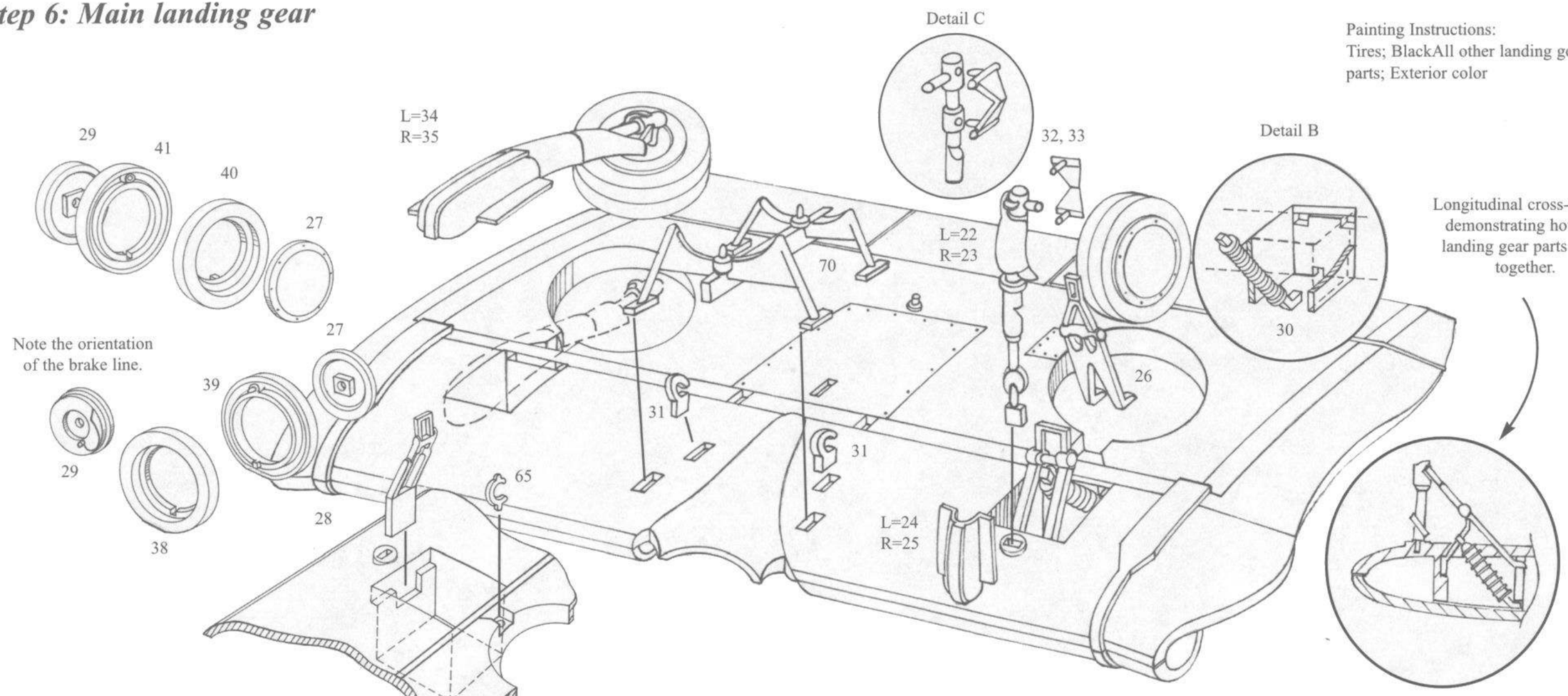
NOTE:Check the rear edge of each main wheel well and remove any flash



5-1. Cement the wing spar (5) to lower wing half (112). Ribs on the spar go aft. Align the arrow on the spar to the engraved line. *It is critical that the spar be aligned properly and fit flush on the wing bottom; other wise the landing gear might not align properly.
5-2. Locate the gun barrels (83) into the hole in the lower upper wing halves.
5-3. Cement left wing upper half (110) to the lower wing hal (112)f
5-4. Cement right upper wing half (111) to the lower wing half

5-5. Cement the wing to the fuselage
5-6a. Cement the upper half of right horizontal stabilizer (114) to lower half of right horizontal stabilizer (120)
5-6b. Cement upper half of left horizontal stabilizer (113) to lower half of left horizontal stabilizer (119)
5-7. Cement stabilizers into the fuselage

Step 6: Main landing gear

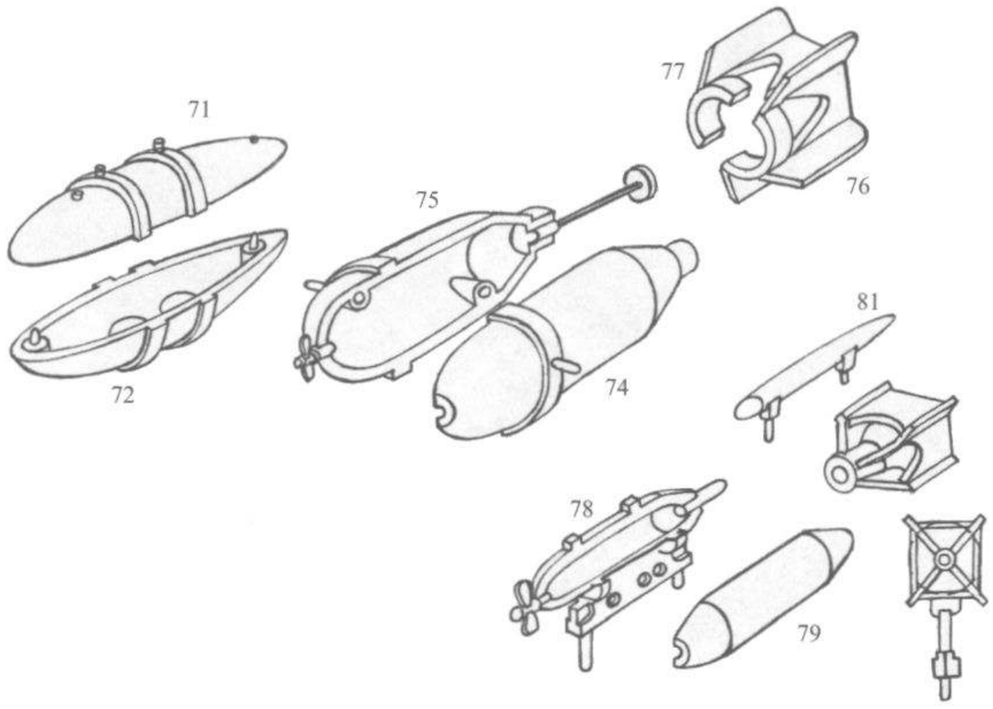


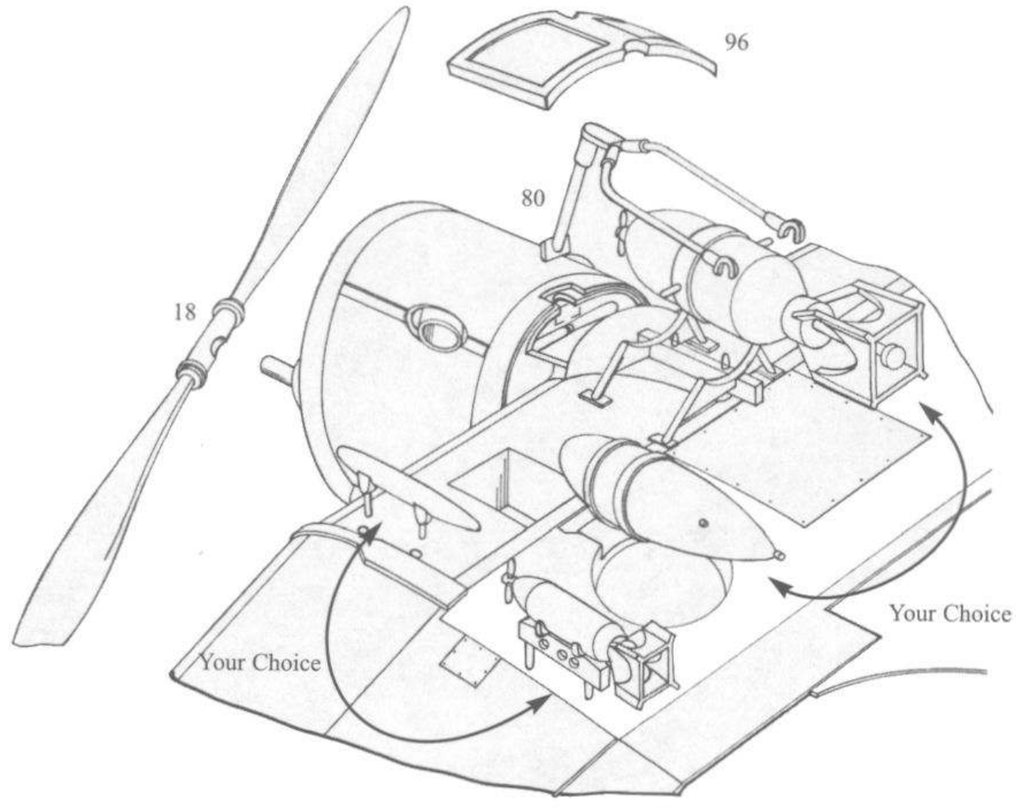
Optional parts are included for retracted landing gear.
Optional parts are included for weighted or unweighted tires.

6-1. Cement tire halves together (38, 39 or 40, 41)
6-2. Cement the hub cap (27) to the tire
6-3. Cement the inner wheel (29) to the tire
For Wheels-up option:
6-4. Locate wheel/tire assembly into landing gear bay
6-5. Cement retracted landing gear mechanism (L=35, R=34) into the respective holes on the wing bottom
For wheels down option: Make sure to check your alignment after each part is installed so you don't run into trouble later.
6-6. Insert the spring (30) into the notch at the back of the landing gear bay (see detail b)
6-7. Locate the actuators (28) into the front of the landing gear bay so that the upper cross member its over the notched pin on the spring.
6-8. Insert the A frames (26) into the notches in the rear of the bay, leaning it forward onto the actuator.
6-9. Cement the olio scissors (32,33) to the main landing gear strut (see detail c)
6-10. Locate main landing gear strut (22=L, 23=R) into hole in front of the mechanism housing
6-11. Locate the strut cover (24=L, 25=R) over the main strut
6-12. Locate wheel/tire assemblies onto the main strut assembly
6-13. Cement the catapult tie-down hooks (31) to the locators in the center of the wing bottom
6-14. Cement central bomb brace and rack (70) to the locators on the lower wing half
6-15. Locate landing gear up-locks (65) to the holes just forward of the wheel well. The hooks should face rearward.

Step 7: Ordnance

Painting Instructions:
Tires; BlackAll other landing gear parts; Exterior color

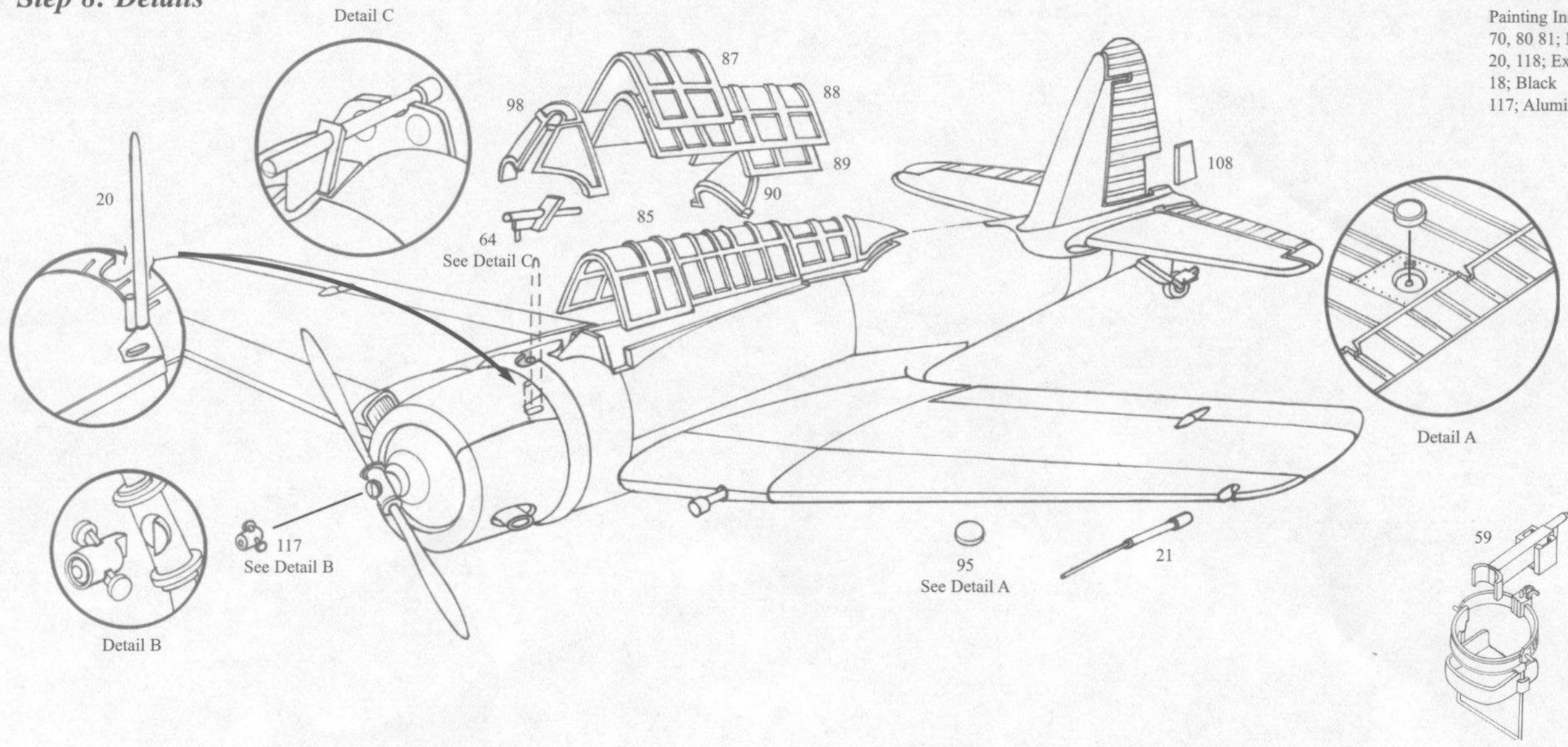




7-1. Cement drop tank top (71) to drop tank bottom (72)
7-2. Cement left 1000 lb. bomb half (74) to right 1000 lb. bomb half (75)
7-3. Cement left 1000 lb. bomb fin (76) to right 1000 lb. bomb fin (77)
7-4. Cement bomb fin assembly to bomb assembly
7-5. Cement 100 lb bomb half with rack (78) to 100 lb bomb half (79)
7-6. Cement 100 lb bomb fin (80) to the bomb assembly

This kit comes with optional practice bomb dispensers.
7-7. Cement practice bomb dispensers (81) or 100 lb bombs (your choice) to the locators on the lower wing half
7-8 .Cement the bomb displacement gear (82) to the inside of the fuselage, just aft of the cowl
7-9. Cement the lower window (96) into the assembled fuselage
7-10. Cement the1000 lb bomb or the drop tank (your choice) to the bomb brace and rack (optional)
7-11. Slide the propeller (18) onto the propeller shaft

Step 8: Details



Painting Instructions:
70, 80 81; Matte White
20, 118; Exterior Color
18; Black
117; Aluminum

8-1. Cement trim tab (118) to rudder8-2. Cement the antenna mast (20) to the cowl assembly
8-3. Tack the propeller hub (117) to the tip of the propeller shaft
8-4 Cement the telescopic sight (64) to the fuselage (see detail)
Use white glue as cement for the clear parts as it does not fog the plastic
8-5. Cement landing light (95) to the wing bottom (see detail)
8-6 Cement the windshield (98) to the fuselage
This kit comes with optional canopies, opened or closed.

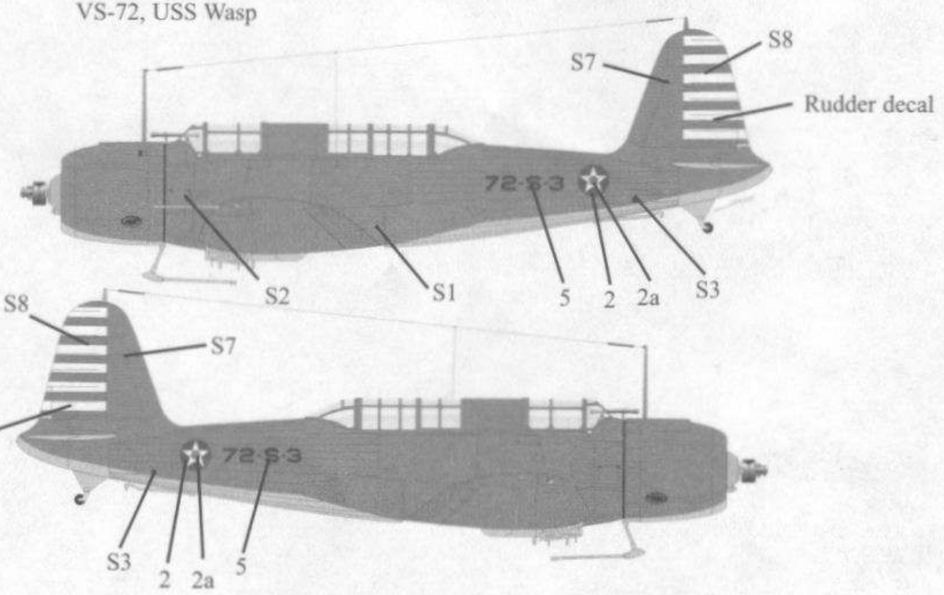
For closed canopy:
8-7. Cement closed canopy (85) to fuselage
For open canopy:
8-8. Cement hood (90) to the locator on the shelf
8-9. Cement rear sliding section (89) to the shelf as shown
8-10. Cement canopy (88) to the fuselage
8-11. Place front sliding section (87) on canopy
8-12. Cement the gun (59) to the locator pin on the gun mount (see detail).
To display the gun in the stowed position, locate the gun to the pinhole on the upper frame.

Step 9: Painting and Finishing

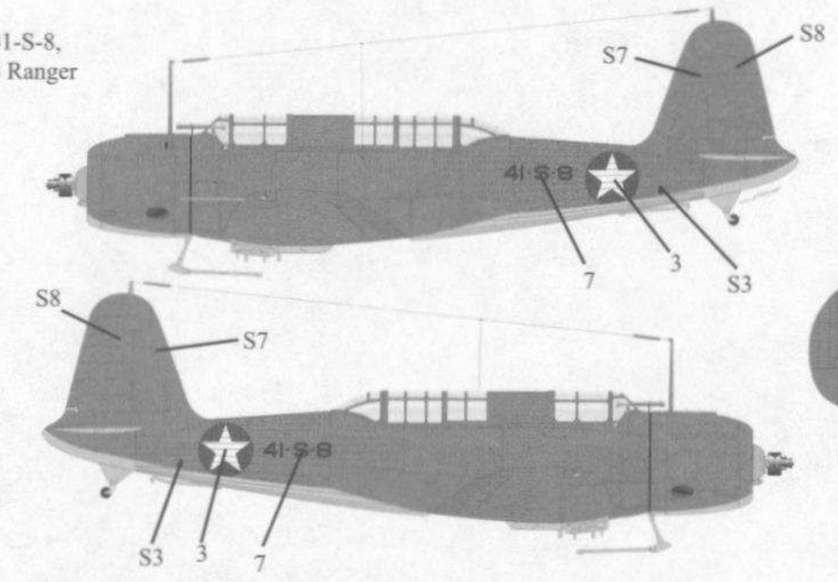
SB2U-2 72-S-3,
VS-72, USS Wasp

Medium Gray
FS35237

Light Gray
FS36495



SB2U-2 41-S-8,
VS-41 USS Ranger



NOTE:On the VS-72 Aircraft, Decal 1a locates to the center of Decal 1 in the same manner as Dacal 2a fits into Decal 2. Decal 2a is NOT used on the VS-41 aircraft.