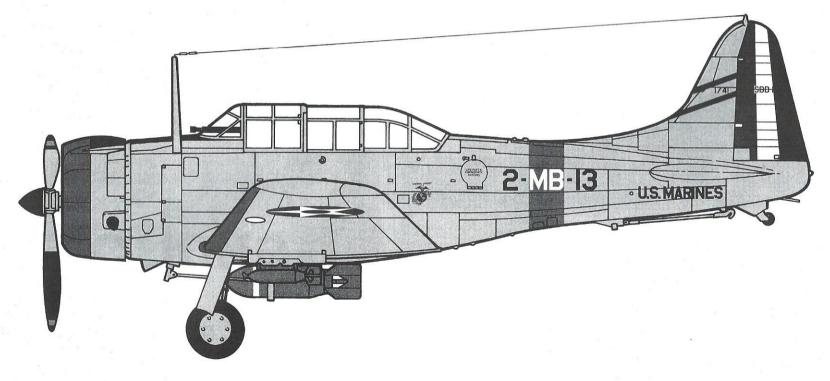
3420-0200



SBD-1 INSTRUCTIONS

MODEL PAINT REFERENCE CHART

	FEDERAL STANDARD	MODEL MASTER	HUMBROL	GUNZE SANGYO AQUEOUS	GUNZE SANGYO MR. COLOR	POLLY S	FLOQUIL CLASSIC MILITARY
ALUMINUM	17178	1781	11	8	218	1995	303121
BURNT METAL	-	1415	_	76	61	1997	-
CHROME YELLOW	13538	1707	188	329	-	855	-
FLAT BLACK	37038	1749	33	12	33	10	303010
GLOSS BLACK	17038	2721	21	2	2	_	-
GLOSS INSIGNIA BLUE	15044	_	190	326	326	-	-
GLOSS INSIGNIA RED	11136	2718	19	3	3	_	-
GLOSS INSIGNIA WHITE	17875	2720	22	316	1	-	-
LEMON YELLOW	13655	2717	69	4	4	-	_
LIGHT GREY	36440	1730	129	325	325	825	303331
OLIVE DRAB	34087	1711	155	304	304	850	30318
WILLOW GREEN	14187	2028	1-4	=	-	-	-

Accurate Miniatures knows that almost all instruction sheets are ignored but as fellow modelers who have built many copies of this kit, we can state categorically that it is very important to follow our recommendations. Our sequence of assembly simply works best.

Most other model aircraft kits assemble in a different manner. You usually build up the fuselage interior then put the two halves together, add the wings etc. This kit is different in that it is a "build it from the bottom" airplane. This method of assembly allows for much more detail to be included and a more precise fit. There are some assembly procedures that contain small "fiddly bits" that require more attention than normally found in contemporary kits. Be Patient!

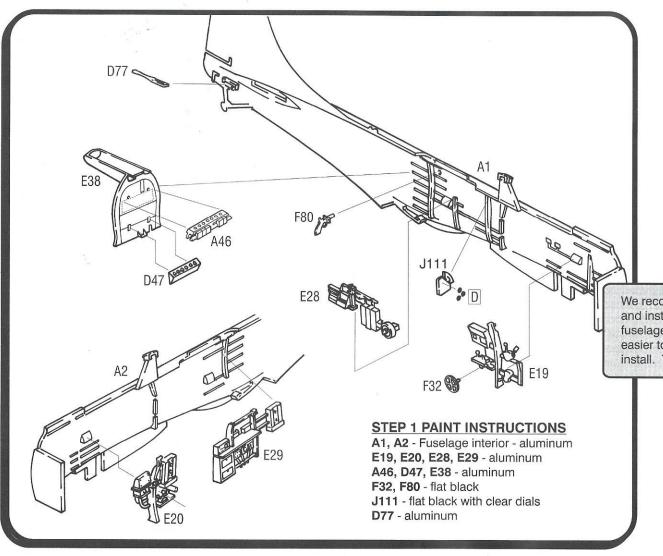
It is very important to pay close attention to this instruction sheet.

This kit has been designed and manufactured to very exacting and delicate standards in order to more accurately represent the actual aircraft. Extra care should be exercised in the removal and handling of the smaller parts. Look at the machine gun barrels to see what we mean. This kit at first will appear to be very complex. However, it is not complicated and if you take your time and follow these instructions and do the usual amount of test fitting, you will be proud of the final result. Many of the smaller pieces are added toward the end of the building sequence to avoid breakage. Just use normal caution during assembly. You will note that many of the parts have been molded with thin cross sections in order to maintain scale. It is our recommendation that you use small amounts of your favorite cement to avoid softening these thin pieces and distorting the plastic.

The assembly process will be made much easier by painting many, if not most, of the components before assembly. Many parts will become inaccessible after installation.

Accurate Miniatures wants the building process to be an enjoyable and enlightening experience. DO NOT RUSH! Let the paint and parts dry thoroughly and most of all have fun in the process. We welcome your suggestions and comments on how to improve upcoming kits.

STEP 1 - FUSELAGE AND SIDE CONSOLES

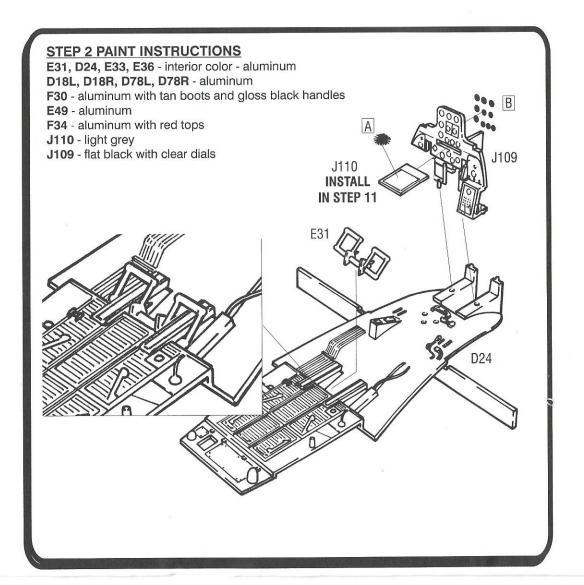


- ☐ Begin by painting the interiors of the left fuselage half (A1) and the right fuselage half (A2). The interior structure of the dash one SBD's were unpainted and are best represented in natural metal (aluminum).
- ☐ Carefully remove the overflow plugs on the gunner's left console (E28), pilot's right console (E20) and the gunner's right console (E29). There are no overflow plugs on the pilot's left console (E19).
- ☐ After painting these pieces, glue them to the fuselage interior as indicated.
- ☐ Glue the trim wheel (F32) to the pilot's left console.
- ☐ Glue the flare pistol (F80) into the hole in the left fuselage in the gunner's compartment.
- ☐ After painting the gunner's instrument panel (J111), add decal (D) to its rear surface and glue the instrument panel to the left fuselage half as indicated.
- ☐ Glue the catapult hold down (D77) into the slot in the rear of the left fuselage half. Remove the overflow.

We recommend that you assemble the rear gunner's bulkhead and install it at this time. It can also be put in place after the fuselage halves are glued together. Doing it later will make it easier to locate properly, while doing it now makes it easier to install. The choice is yours.

- ☐ Glue the flare rack (D47) into the lower holes in the rear gunner's bulkhead (E38).
- □ Next, glue the .30 cal ammo tray (A46) onto the area of the bulkhead designated by the dotted rectangle in the illustration (The tray should be oriented as shown, with the molded holes on the top surface and the boxes projecting forward). If you decide to install the bulkhead assembly at this time, glue it in place now. The forward face of the bulkhead assembly will rest against the rearmost surfaces of the fuselage stringers on both fuselage halves.
- ☐ Finally, test fit and glue the fuselage halves together. Set this assembly aside and let it dry.

STEP 2 - COCKPIT AND GUNNERS FLOOR



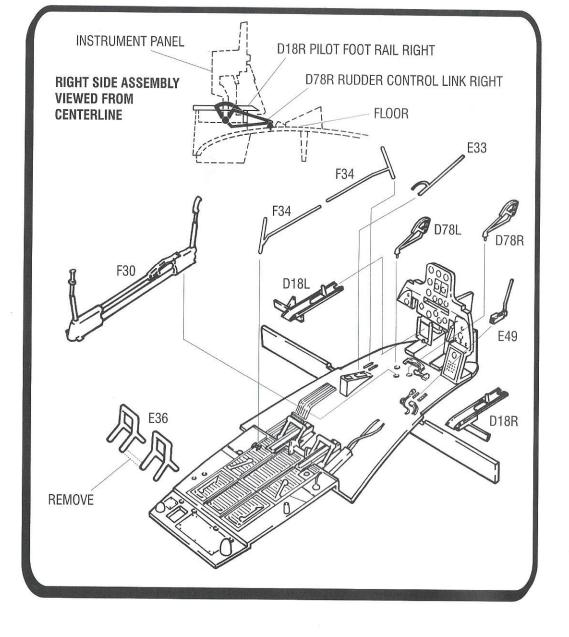
This assembly contains many small pieces and will present the greatest challenge to build. Be patient! These pieces fit together in a straightforward and logical manner. You will be rewarded with a very realistic cockpit assembly. The handiest tool for this assembly will be tweezers. Nobody has fingers small enough to assemble the rudder pedals!

- □ Begin by sliding the gunner's rudder pedals (E31) onto the heel troughs on the interior floor (D24) and pushing them all the way to the rear. The two small protuberances on the rudder pedals should point forward.
- □ Before beginning the instrument panel assembly, it should be noted that Accurate Miniatures has provided a separate map table (J110) that slides into the instrument panel. This table may be glued in the closed or extended position. To allow for ease of access to other parts, it should not be glued in position until later in the assembly process. If you choose to place the table in the extended position, you may also elect to place the navigation calculator Decal (A) on the table. This table provided a work space for the pilot who was also responsible for the navigation chores.

DO NOT GLUE THE MAP TABLE INTO THE INSTRUMENT PANEL AT THIS TIME. (SEE STEP 11)

- ☐ Apply Decal (B) to the back of the instrument panel (J109). Carefully align the dials so they may be seen from the front of the panel. The front of the panel may now be painted in the usual way and the raised dials highlighted by drybrushing.
- ☐ After you are satisfied with the instrument panel finishing, glue the instrument panel to the floor. The two locating pins on the bottom of the rudder pedals locate into the holes on the raised portion of the pilot's cockpit. Make sure that the panel is perpendicular to the floor. Let this dry throughly.

While the instrument panel is drying prepare the pilot's foot rails for installation. This will be the most difficult part of the kit so be patient and go slowly.



- □ Start by removing the pilot's left foot rail (D18L) from the tree. Lightly sand the sides. The pilot's foot rails will be placed in the openings directly below the rudder pedals on the instrument panel; the clearance is tight. You may also want to clean up the mold seams on the openings below the rudder pedals. Every little bit will help make the fit easier.

 □ Now carefully slide the pilot's left foot rail forward through the opening and glue it to the tab on the very front of the floor. The flat surface of
- the foot rail should be <u>parallel</u> to the surface of the floor.

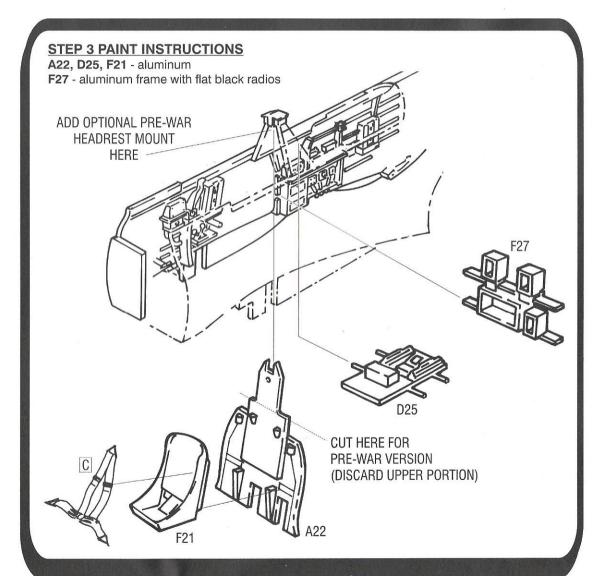
 □ Ok, now repeat this operation using the pilot's right foot rail (D18R).

 When this piece is properly in place, the horizontal bar should rest on the bottom right of the instrument panel electrical box.
- Glue the left rudder control link (D78L) and the right rudder control link (D78R) to the appropriate sides of the rudder pedals on the instrument panel and to the two locating holes on the cockpit floor. This is where those tweezers become essential! These parts really were there and add a great deal to the overall look of the cockpit assembly. We suggest that you glue the control links to the floor first then carefully locate them to the rudder pedals as the glue dries. Take a break. It gets
- ☐ Before gluing the pilot/gunner control column (F30) to the cockpit floor, you will find it easier to first paint the horseshoe shaped device located on the floor just ahead of the pilot's column; its color should be insignia red. This was a gust lock and was used to hold the column and control surfaces in place when the aircraft was parked.

easier from here on.

- ☐ After the control column is glued in place, locate and cement the dive flap actuator (E49) to the right side of the cockpit floor. This locates between the slightly raised detail just to the right of the pilot's relief tube.
- ☐ Glue the arresting hook lever (E33) into the raised locator to the left of the pilot's cockpit.
- ☐ The two wobble pump handles (F34) are now glued into the raised locators in the pilot's cockpit and gunner's cockpit on the left side. The two long horizontal portions of these parts should point toward each other and slightly overlap. Glue the horizontal portions together, keeping them parallel to the floor.
- ☐ Carefully remove the horizontal bar connecting the gunner's foot rests (E36). Now glue the foot rests to the four indentations on the rearmost portion of the floor. Set assembly aside for later installation in Step 5.

STEP 3 - INTERIOR COMPONENTS

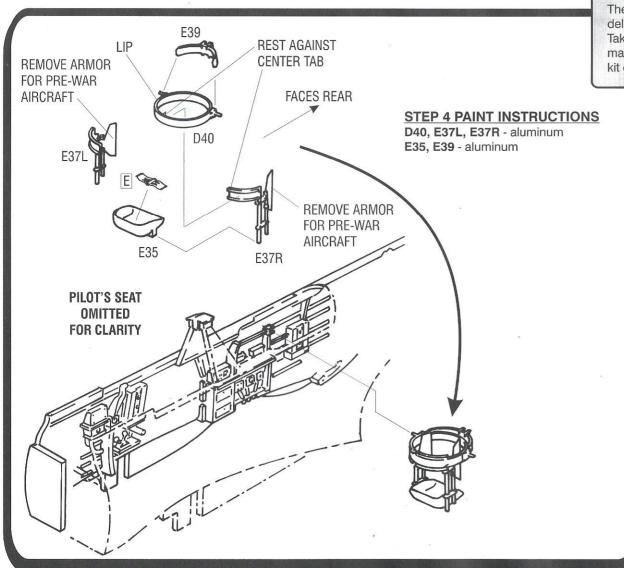


- ☐ After painting the pilot's seat (F21), you may elect to apply the pilot's seat belt Decal (C). If you choose to not use the seat belt decal you may use your favorite seat belt technique.
- □ Before the pilot's seat is assembled to the bulkhead, it should be noted that the armor plate at the top of the bulkhead was not present in prewar aircraft. It has been molded in place to allow modelers to build SBD-1 airplanes that had this piece added in the field after Pearl Harbor. If a pre-war version is being modeled, this armor should be cut off as indicated. However, this removal will make it impossible to mount the pilot's headrest in Step 11. As a result, the mounting of the headrest for a pre-war plane will require the builder to fabricate a mount and glue it under the rollover structure. We recommend using a piece of .020 sheet styrene cut to match the template provided below. Mount this piece before gluing the pilot's bulkhead in place. Use a #60 (1mm, .040") drill to make the headrest mounting hole on the new mount.
- ☐ Glue the pilot's seat to the pilot's bulkhead (A22). The bottom of the seat rests on the two small raised ledges on the bottom of the bulkhead.
- ☐ Test fit and glue the bulkhead into the fuselage from the bottom until it rests against the forward portion of the fuselage roll over hoop and against the fuselage sides.
- ☐ Working from the bottom of the fuselage, glue the cockpit shelf (D25) into the fuselage and forward until it rests against the rear surface of the pilot's bulkhead.
- □ Locate and test fit the gunner's radio equipment (F27) up into the fuselage. This piece locates into the notches in the fuselage sides and against the forward surface of the right gunner's side console.



TEMPLATE FOR PILOT'S HEADREST MOUNT

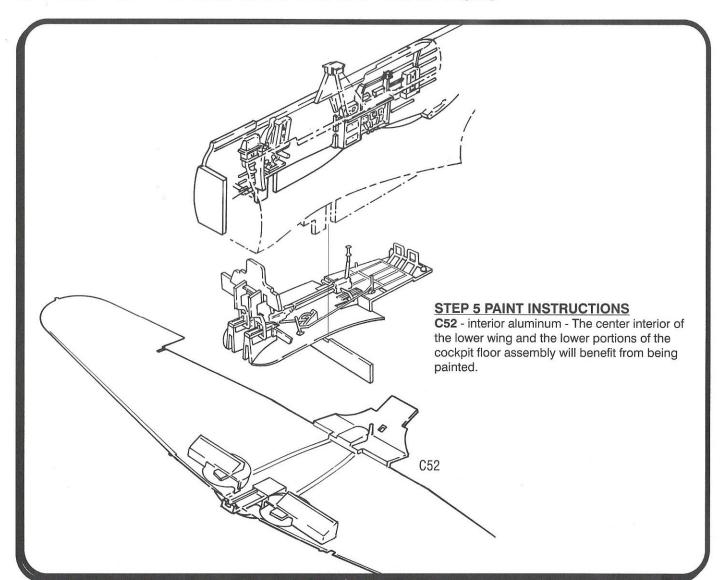
STEP 4 - TURRET RING



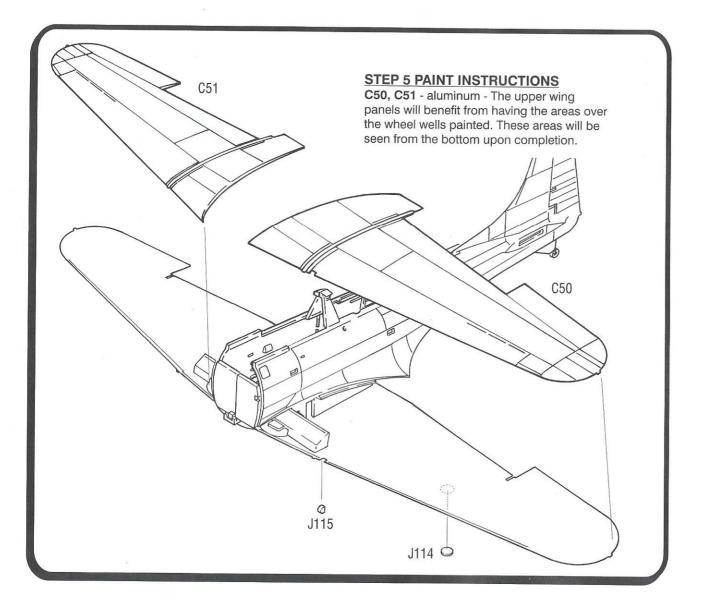
The components that make up the turret ring, seat and gun are delicate and molded in scale. They should be handled with care. Take your time and allow plenty of drying time. The rear gunner's machine gun is best assembled and installed toward the end of the kit construction to avoid breakage. (See Step 13)

- □ Carefully remove the right gunner's seat frame (E37R) and the left gunner's seat frame (E37L) from the tree and, if a pre-war plane is being modeled, remove the armor plates from each piece. Carefully remove the turret ring (D40) from the tree. With the lip on the turret ring to the top, glue the right gunner's seat frame (E37R) and the left gunner's seat frame (E37L) to the inside of the turret ring. Make sure these pieces are perpendicular to the ring. Allow to dry thoroughly.
- ☐ Apply the gunner's seat belt decal (E) to the gunner's seat (E35).
- ☐ After the decal has dried, glue the gunner's seat to the bottom of the legs on the gunner's seat frame. The dip in the seat should point toward the gun mount. Again, allow to dry thoroughly.
- ☐ Carefully glue the gun mount (E39) to the gunner's ring. This piece should be parallel to the gunner's ring when viewed from the side.
- □ When you are satisfied that all of these parts are properly aligned and thoroughly dry, carefully locate the gunner's seat assembly into the fuselage. The two locating pins on the sides of the gunner's ring are placed into the two slots on the left and right gunner's side consoles. The gunner's seat assembly may be placed into position from the opening in the bottom of the fuselage or from above. Either way works. When you are satisfied that the seat assembly is properly aligned, carefully glue it into place. Allow to dry.

STEP 5 - FLOOR AND WINGS

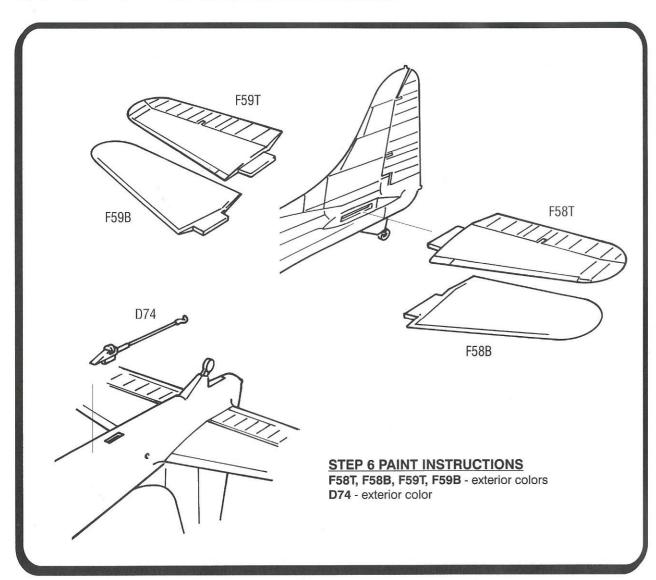


- ☐ After test fitting, glue the completed floor assembly from Step 2 into the fuselage. If you have not already done so, it is a good idea to paint the underside of the floor as some of the openings in the wing bottom will allow the floor bottom to be seen when the model is completed.
- □ Locate and cement the wing bottom (C52) to the fuselage.



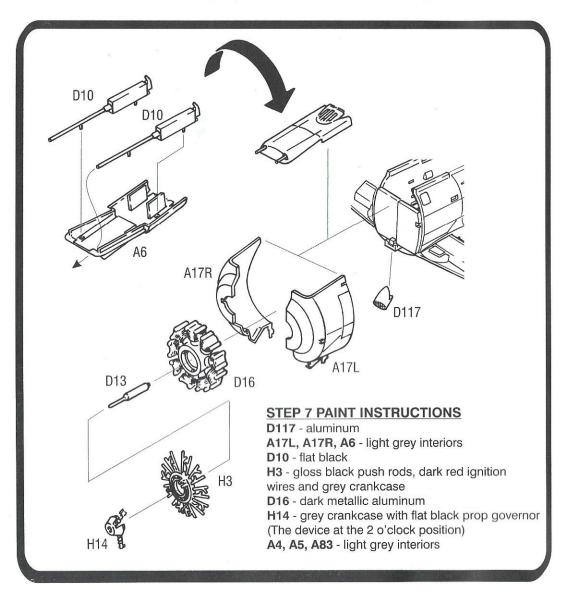
- ☐ When the wing bottom is dry, glue the left top wing (C50) and the right top wing (C51) to the wing bottom and the fuselage wing fillet. It is recommended that you glue the wing tops to the fuselage wing fillet first and glue toward the wing tips to insure a good tight fit at the wing root.
- ☐ After cleaning up the glue joint, paint the area behind the approach light (J115) on the left wing leading edge bright silver and glue the light in place. We recommend you use white glue or clear gloss acrylic paint to secure the clear pieces in place to avoid smearing or crazing the clear plastic.
- ☐ Repeat the painting procedure for the landing light (J114) on the left wing bottom. Glue the landing light in place.

STEP 6 - STABILIZERS

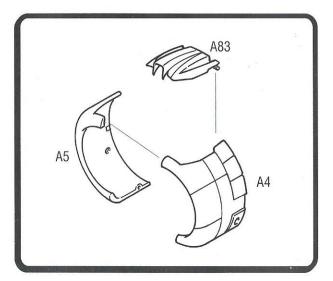


- ☐ Glue the left stabilizer top (F58T) to the left stabilizer bottom (F58B).
- ☐ Glue the right stabilizer top (F59T) to the right stabilizer bottom (F59B).
- □ Now glue the left and right stabilizers to the fuselage. Make sure that you keep these assemblies level with the ground.
- ☐ Finally, glue the arresting hook (D74) to the bottom rear of the fuselage.

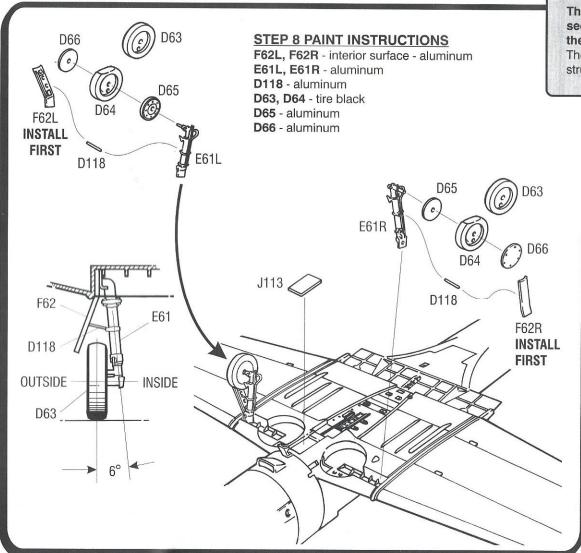
STEP 7 - NOSE AND ENGINE



- ☐ Glue the oil cooler (D117) to the lower front center of the fuselage / wing assembly. The screen should point forward and downward, and the longer side of the V-notch should be oriented vertically as shown.
- ☐ Glue the left intermediate cowl (A17L) to the right intermediate cowl (A17R). Glue this assembly to the fuselage.
- ☐ Glue the nose machine guns (D10) to the underside of the nose gun cover (A6). (The front barrel tips must protrude through the two holes.)
- □ Now glue the nose gun assembly to the top of the intermediate cowl.
- ☐ Begin the engine assembly by gluing the pushrod / harness (H3) to the engine cylinders (D16).
- ☐ Glue the crankcase front (H14) to the pushrod / harness, trapping the propeller shaft (D13) between these two pieces. Do not allow glue to come into contact with the propeller shaft.
- □ Now glue the completed engine assembly to the front of the intermediate cowl.
- ☐ Glue the left cowl half (A4) to the right cowl half (A5).
- ☐ Glue the cowl top (A83) to the cowl assembly. The cowl assembly may be glued to the intermediate cowl or placed on the fuselage after painting and weathering if you choose.



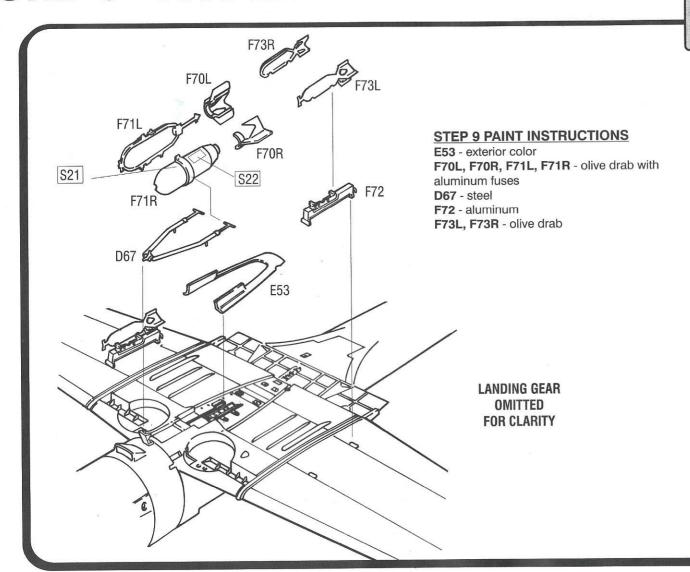
STEP 8 - LANDING GEAR



The landing gear assembly on this kit will "self align" if you follow this sequence of assembly. Difficulty with alignment can occur if you alter the sequence. (We told you it was a good idea to read these instructions!) The locating area in the wheel wells are designed to force the landing gear strut cover and the strut to have a precise relationship with each other.

- ☐ Glue the left strut cover (F62L) and the right strut cover (F62R) into the left and right wheel wells respectively. The doors should point outward and forward.
- □ Now glue the left landing gear strut (E61L) and the right landing gear strut (E61R) into the wheel wells and up against the strut covers. These parts should have their axles parallel to the ground when viewed from the front. The gear legs should have a 6 degree inward angle when viewed from the front.
- ☐ After these parts have dried, carefully glue two strut cover arms (D118) between the landing gear struts and the strut covers.
- ☐ Accurate Miniatures has provided both weighted (D64) and unweighted (D63) tires. Select the ones you wish to use and glue the brake drums (D65) and the wheel cover (D66) into the center of your selected tires. The wheels have been molded separately to make painting easier.
- ☐ Glue the tire / wheel assemblies onto the axles making sure that the flat spot on the weighted tire sits level on the ground when viewed from all angles.
- ☐ Glue the pilot's bomb release window (J113) into the opening in the wing bottom.

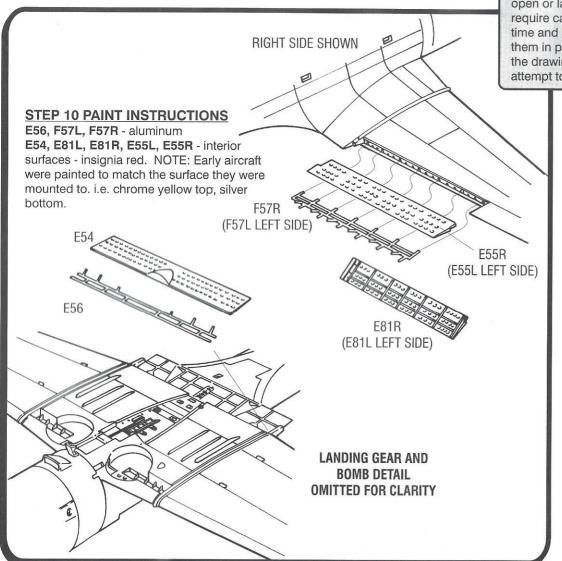
STEP 9 - 1000 LB. AND 100 LB. BOMBS



Due to the budget restraints of the 30's, the Dash One Dauntlesses often flew with no more than 100 lb. Practice bombs, which were painted light blue.

- ☐ Glue the centerline bomb fairing (E53) to the center of the wing bottom.
- ☐ Glue the left 1000 lb. bomb half (F71L) to the right 1000 lb. bomb half (F71R).
- ☐ Glue the left bomb fin (F70L) to the right bomb fin (F70R). After painting, apply stencils (S21 and S22) to bomb body.
- ☐ Line up the locating tabs and glue the fin assembly to the bomb. The fins must be parallel to the wing bottom.
- ☐ Glue the bomb trapeze (D67) to the sides of the bomb. Before the glue sets firmly, glue the bomb trapeze into the hinge mechanism on the bottom of the intermediate cowl. The two small pins on the trapeze arms should point toward the bottom of the airplane. The bomb trapeze allowed the bomb to swing free of the propeller arc.
- □ Now glue the two 100 lb. bomb wing racks (F72) to the bottoms of the wings.
- □ Glue the left 100 lb. bomb half (F73R) to the right 100 lb. bomb half (F73L). Make two sets. Ignore the fact that the "L" and "R" are mislabeled. Most bombs have the pointy end forward.
- ☐ Glue the 100 lb. bombs to the bomb wing racks.

STEP 10 - DIVE FLAPS



The dive flaps on this kit may be assembled in any one of three positions: closed, full open or landing (lower flaps lowered only). The dive flap actuators are delicate and require care in the removal from the trees and installation on the model. Take your time and do not remove the parts from the tree until you are ready to paint and glue them in place. If you become confused as to where the flaps and actuators go, consult the drawings. The dive flaps and actuators will only fit where they belong so do not attempt to force them into place.

Closed Position:

Dive flap actuators (E56, F57L & F57R) are not used for the closed position.

- ☐ Glue the center dive flap (E54) to the center wing bottom.
- ☐ Glue the upper dive flaps (E55L & E55R)) to the wing tops in the closed position.
- ☐ Glue the lower dive flaps (E81L & E81R) to the wing bottoms in the closed position.

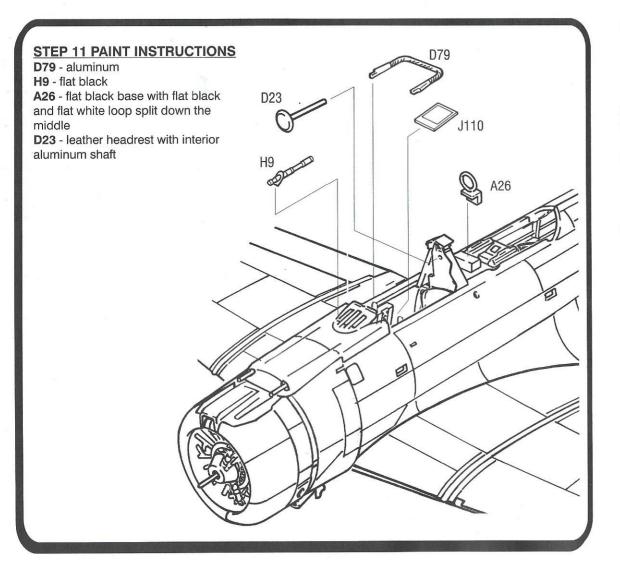
Full Open Position:

- ☐ Glue the center dive flap actuator (E56) to the center wing bottom. The center actuator should have the two long parallel rods placed in a horizontal position against the bottom surface of the wing.
- ☐ Glue the left dive flap actuator (F57L) to the left wing and the right dive flap actuator (F57R) to the right wing. The left and right dive flap actuators have longer "fingers" that should point toward the bottom and center of the model.
- ☐ Glue the center dive flap (E54) to the wing bottom and actuator.
- ☐ Glue the left lower dive flap (E81L) to the wing bottom and the actuator in the open position and the right lower dive flap (E81R) to the right wing bottom and actuator in the open position.
- ☐ Glue the left top dive flap (E55L) and the right top dive flap (E55R) in the open position to the respective wing tops.

Landing Position:

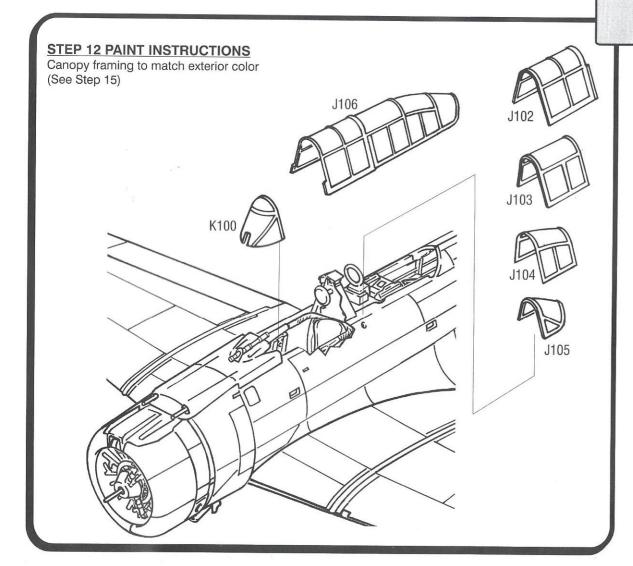
- ☐ Begin by glueing the upper dive flaps (E55L &E55R)) to the wing tops in the closed position.
- □ Now glue the left and right dive flap actuators (F57L & F57R) into the wings.
- ☐ Glue the left and right lower dive flaps (E81L & E81R) to the lower wings and actuator "fingers."

STEP 11 - COCKPIT DETAILS



- ☐ Carefully remove the hoisting cable (D79) from the tree and locate onto the two raised clevises on the sides of the pilot's cockpit. The cable rests behind the pilot's seat. This cable was used on the real aircraft to raise the plane from dockside to the carrier deck. It was also used to suspend the plane from the ceiling when space was at a premium below carrier decks.
- ☐ Glue the radio direction finder loop (A26) onto the mid-fuselage shelf.
- ☐ Carefully locate and glue the telescopic gun/bomb sight (H9) to the upper cowl.
- ☐ Finally, glue the pilot's headrest (D23) to the pilot's bulkhead (for post-Pearl Harbor plane) or to the mounting piece created in Step 3 (for a pre-war plane). The headrest was adjustable on the real aircraft, and the mounting pin will need to be trimmed to your desired length before gluing.
- ☐ Install map table (J110) from Step 2 at this time.

STEP 12 - CANOPIES



The canopies may be installed in the closed or opened (stacked) position.

□ Begin the installation of the clear parts by gluing the pilot's windscreen (K100) onto the cowl. Remember to use your non-crazing glue. Go slowly and be certain that the telescopic sight fits correctly into the windscreen slot.

Closed Position:

If you are building the closed version, the gunner's machine gun will need to be stored under the turtle deck or removed. (See Step 13)

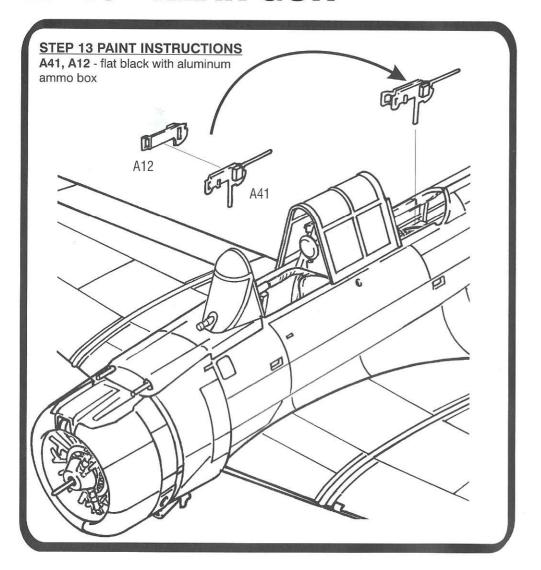
☐ For the closed version, simply glue the closed canopy (J106) onto the fuselage.

Open Position:

If you are building the open version it is very important to follow the assembly sequence exactly.

- ☐ Begin by gluing the rear canopy (J105) over the DF loop and onto the top of the fuselage deck. This canopy was frequently removed from the real aircraft so it may be left off to expose more detail on your kit.
- ☐ While the rear canopy is drying, glue the gunner's canopy (J104) onto the rear deck.
- □ Now glue the fixed canopy (J103) over the gunner's canopy.
- ☐ The pilot's canopy (J102) may be positioned open or closed or any place in between.

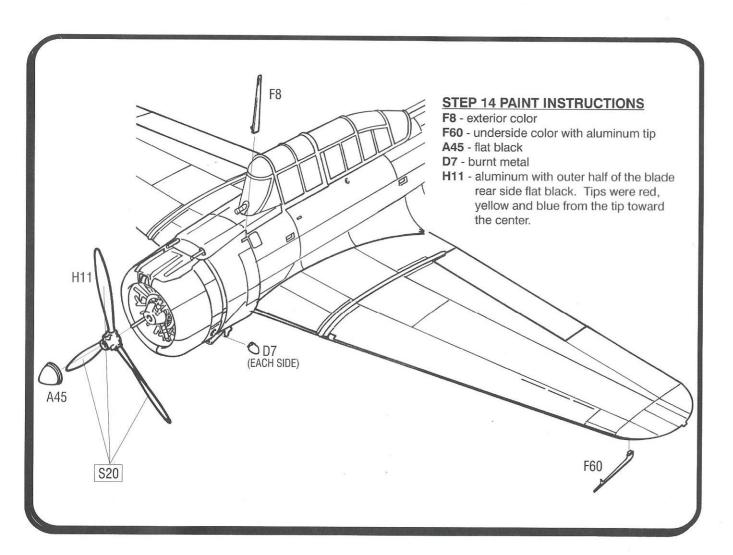
STEP 13 - REAR GUN



The machine gun parts are very delicate. Use extra care in handling and installation.

- ☐ Glue the .30 cal ammo box (A12) to the .30 cal machine gun (A41).
- ☐ The machine gun may now be glued to the gun ring. If you are building your kit with a closed canopy, position the gun in the trough behind the gunner's position, or you may leave the gun assembly out altogether.

STEP 14 - FINAL DETAILS



- ☐ Glue the radio mast (F8) to the left side of the fuselage. An antenna may be added from this mast to the top of the tail as a final step after the mast is thoroughly dry.
- ☐ The two exhausts (D7) are now glued in place.
- ☐ Glue the pitot tube (F60) to the bottom of the left wingtip.
- ☐ Apply stencils (S20) to front surfaces of propeller (H11). Carefully push the propeller onto the propeller shaft.
- ☐ Glue the spinner (A45) onto the propeller.

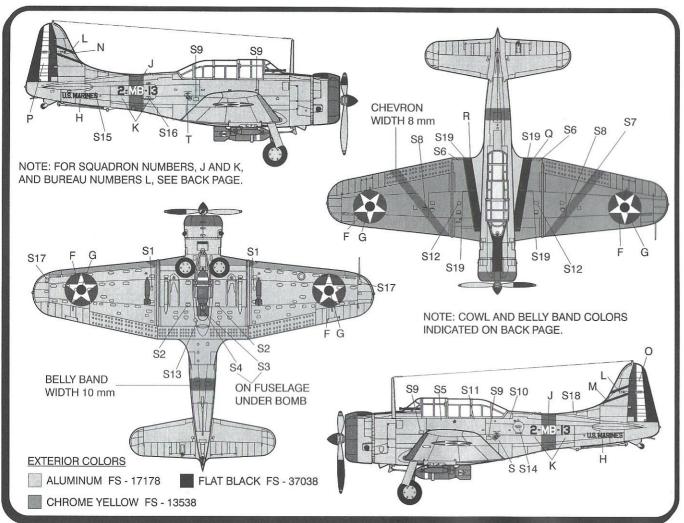
Our examination of the sole surviving SBD-1 has revealed that the spinner was coated in rubber. It is therefore safe to paint this piece to represent a black surface.

The assembly of your SBD-1 is now complete.

Accurate Miniatures, Inc. would like to thank the following individuals and organizations for their generous help in the preparation of this kit:

Dale Caldwell
Clark Macomber
Larry Fuller
US Naval Museum and Hill Goodspeed
US Navy History Office and Steve Hill
Jim Sawruk
John Elliot
Thomas E. Doll
Bob Willis and the staff/Kalamazoo Air Museum
Lawrence D. Webster, Aero Historian

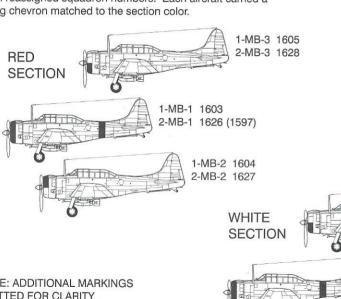
STEP 15 - DECAL PLACEMENT AND FINISHING



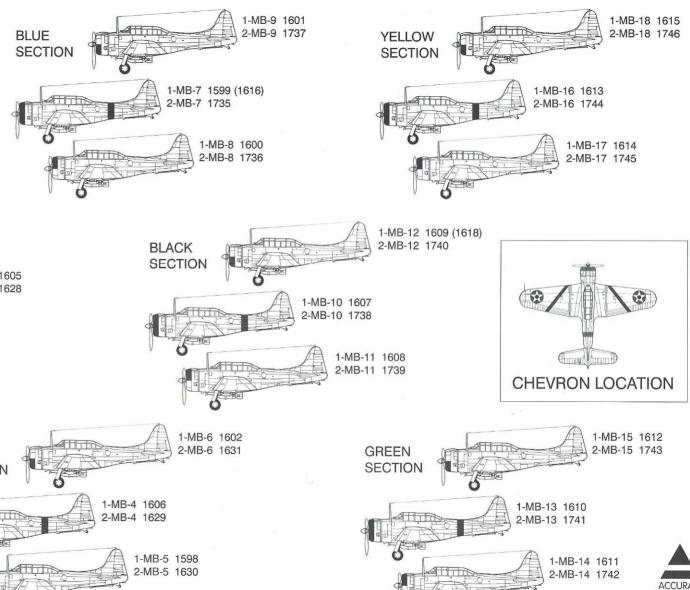
The SBD-1 was originally intended for use by the U.S. Navy, but the Navy was reluctant to accept certain design aspects of the plane. Knowing also that the "Dash Two" was on its way, the Navy refused the first "Dash One's", so these first Dauntlesses found their way into the Marine Corps inventory. Two Marine SBD-1 squadrons were formed, VMB-1 and VMB-2. Each squadron operated eighteen aircraft. A detailed explanation of the squadron and section markings is located on the back of this instruction sheet.

This kit supplies markings that allow the builder to construct any of the aircraft from either squadron, since each individual aircraft number has been matched to the correct bureau number. It is important to note that these aircraft left the factory in full squadron markings. All aircraft were primed with zinc chromate finish on all metal surfaces, inside and out. Silver laquer was applied over the primer. All aircraft had chrome vellow upper wing surfaces. The chrome yellow wrapped around the leading edge of the wing and extended back to the first panel line on the lower surface. Our examination of the remains of the only surviving SBD-1 indicates that the inner surfaces of the dive flaps appear to have been originally painted to match the surfaces to which they were mounted. This was later changed to insignia red. Fabric surfaces were given several coats of clear dope followed by pigmented dope of the correct color. This is the reason why fabric surfaces frequently looked different from the metal surfaces of the same color.

The factory-issued "Dash One" Dauntless carried the prewar Navy color scheme that was common to Navy aircraft of the period. As the war approached, these colorful aircraft took on the overall light grey scheme, and at the time of Pearl Harbor they all carried this camouflage scheme. Most of these aircraft were destroyed on the ground at Ewa Airfield during the attack on battleship row. The assignment of each aircraft in a pre-war U.S. Navy or U.S. Marine squadron could be easily determined by its color-keyed markings. There were six three-aircraft sections in each squadron. They were color coded in insignia red, insignia white, insignia blue, black, willow green and lemon yellow in that order. Section leaders had full cowl bands and "belly bands" (rear fuselage) in the section color. Wing men had only half cowl bands. The number two man had the top half cowl band while the number three man had the bottom cowl band. Squadron aircraft were numbered 1 through 18. One, two and three formed the first section: four, five and six the second and so on. Occasionally a squadron would have a utility aircraft, somewhat obsolescent, numbered 19 which carried no section markings. The illustrations on this page provide each aircraft's squadron number and its four digit bureau number. Bureau numbers in parenthesis indicate replacement aircraft with reassigned squadron numbers. Each aircraft carried a wing chevron matched to the section color.



NOTE: ADDITIONAL MARKINGS OMITTED FOR CLARITY.



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