

# Messerschmitt Bf 109G "Gustav"

Revell

H-279-380

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LITHO IN U.S.A.

The fame of the nimble Messerschmitt 109 is well-known to historians and model builders alike. It was rugged, it was fast, it could tangle with the best the Allies had to offer... and it was treated with the greatest respect. One of the advantages the 109 had over its World War II opponents was the benefit of experience. By the outbreak of the war in 1939, the 109 had already seen nearly two years of combat in the Spanish Civil War.

## LARGER GUNS... MORE ENGINE POWER

In the summer of 1942, the very refined Messerschmitt Bf-109G, or "Gustav", began to appear. With the addition of larger machine guns and a more powerful engine, it was an improvement over the "F" model then in service. The breeches of the new machine guns were covered by two bulges on the cowling. These bulges led to the unofficial christening of the 109G as "Beule", or "the Bump."

The introduction of the Gustav was marred by a series of mysterious losses. The problem was eventually traced to smoke from the engine seeping into the cockpit. But, although the operational performance of the Gustav was hampered somewhat by the addition of heavier equipment than earlier models, it continued to be an outstanding fighter. The Bf-109G was preferred by many of the veteran Luftwaffe pilots over the newer fighters being introduced by the Germans at the close of the war.

## FROM OFFENSE TO DEFENSE

Over 70 percent of all the Bf-109's built were Gustav's and by the end of 1942 they had nearly replaced the earlier models. At this time Gustav's and the Focke Wulf Fw 109A's made up the entire daylight fighting force of the Luftwaffe. Gustav's were

used with great success in Russia until newer Russian fighters outnumbered them. As the tide of war changed and the Germans were forced to assume the defensive role, the fighter squadrons were withdrawn from the front lines and returned to the homeland. To cope with the ever-increasing bombing raids against the German manufacturing centers, Luftwaffe pilots resorted to novel means of attack. One such method was to attach a 550 lb. bomb under the fuselage of a Gustav and fly above the bomber formation. The bomb, with a time fuse, would then be dropped among the bombers to explode.

## THE LAST RESORT: RAMMING

Another interesting, and more practical weapon was the rocket tube. Two of these could be mounted under the wings of the Gustav and each could fire one 210 mm missile. However, the effectiveness of these weapons was severely limited due to the overwhelming superiority of the Allied forces and many German pilots resorted to ramming the bombers in desperation.

Your Revell model depicts a Bf-109G flown by the Gruppe Kommanduer, 2nd Gruppe, JG 54 based in Russia in 1943.

## Messerschmitt Bf-109G Gustav Specifications

<b>Wingspan:</b>	32 feet 6-1/2 inches
<b>Length:</b>	29 feet 1/2 inch
<b>Powerplant:</b>	One Daimler-Benz DB-605A twelve cylinder liquid cooled engine rated at 1,475 hp.
<b>Maximum Speed:</b>	387 mph
<b>Armament:</b>	One engine-mounted 20 mm MG 151 cannon, two 13 mm MG 131 machine guns.

★ ★ ★ BEFORE YOU BEGIN ★ ★ ★

GET YOUR TOOLS READY:

 <p><b>KNIFE</b> TO DETACH AND TRIM PARTS <b>FILE</b> TO REMOVE EXCESS PLASTIC</p>	 <p><b>TWEEZERS</b> TO PICK UP AND HOLD SMALL PARTS</p>	 <p><b>PAINT BRUSH</b> <b>TOOTH PICK</b></p>	<p><b>CEMENT</b> USE TOOTH PICK, PAINT BRUSH OR PIN TO APPLY IT</p>	 <p><b>TAPE</b></p>	<p><b>TAPE AND CLOTHES PINS</b> TO CLAMP AND HOLD PARTS UNTIL THEY ARE DRY</p>	 <p><b>RUNNER</b> <b>TAB</b> <b>PART</b></p>	<p><b>DO NOT DETACH PARTS UNTIL YOU ARE READY TO USE THEM!</b> PARTS ARE NUMBERED TO HELP YOU FIND THEM. LOOK FOR THE NUMBER ON TAB NEXT TO PART OR ON PART ITSELF.</p>
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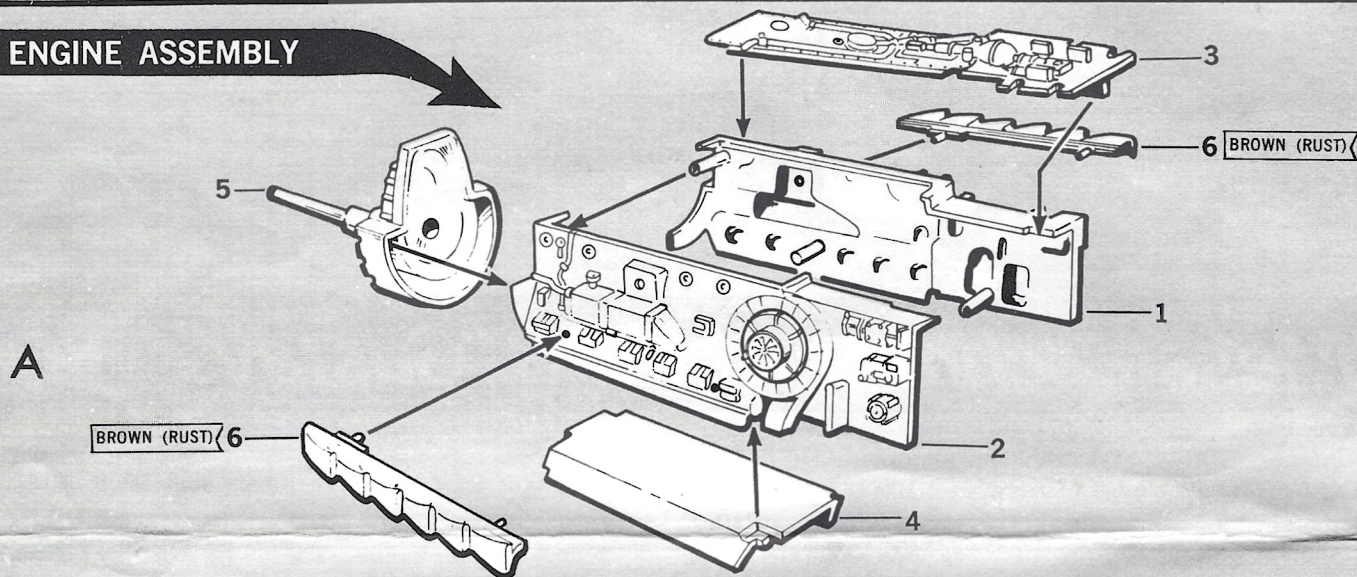
FIRST, FIT PARTS TOGETHER and TRIM EXCESS PLASTIC. Use a toothpick, pin or small paint brush to apply cement. APPLY CEMENT SPARINGLY. Too much cement will damage your model.

NOTE: In the illustrations some of the details on the parts have been OMITTED FOR CLARITY.

IF YOU WISH TO PAINT YOUR MODEL — See PAINTING FLAGS  for color suggestions.

- Paint small parts **before** detaching from runner.
- Start with the lighter colors.
- Scrape off paint where cement is to be applied. Cement will not work on paint.

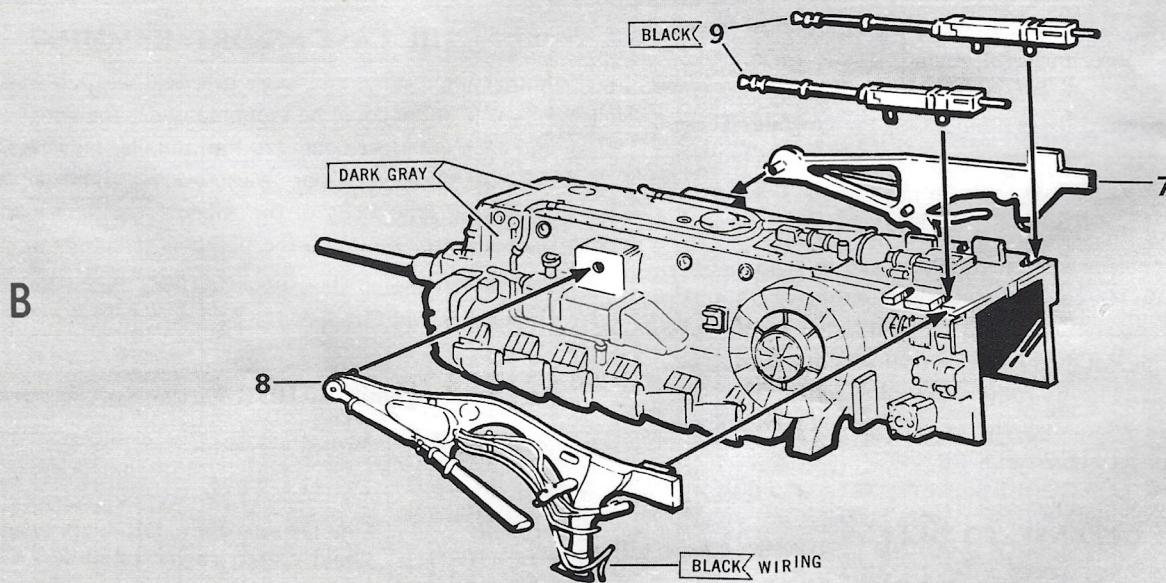
**1 ENGINE ASSEMBLY**



DRAWING A

- 1 ENGINE RIGHT HALF
- 2 ENGINE LEFT HALF
- 3 ENGINE TOP
- 4 ENGINE VALLEY COVER
- 5 REDUCTION GEAR HOUSING
- 6 EXHAUST STACKS (2 Parts)

1. Cement ENGINE HALVES RIGHT Part (1) and LEFT Part (2) together.
2. Cement ENGINE TOP Section (3) to SIDES.
3. Cement VALLEY COVER (4) and REDUCTION GEAR HOUSING (5) to ENGINE.
4. Cement EXHAUST STACKS (6) to RIGHT and LEFT SIDES of ENGINE.

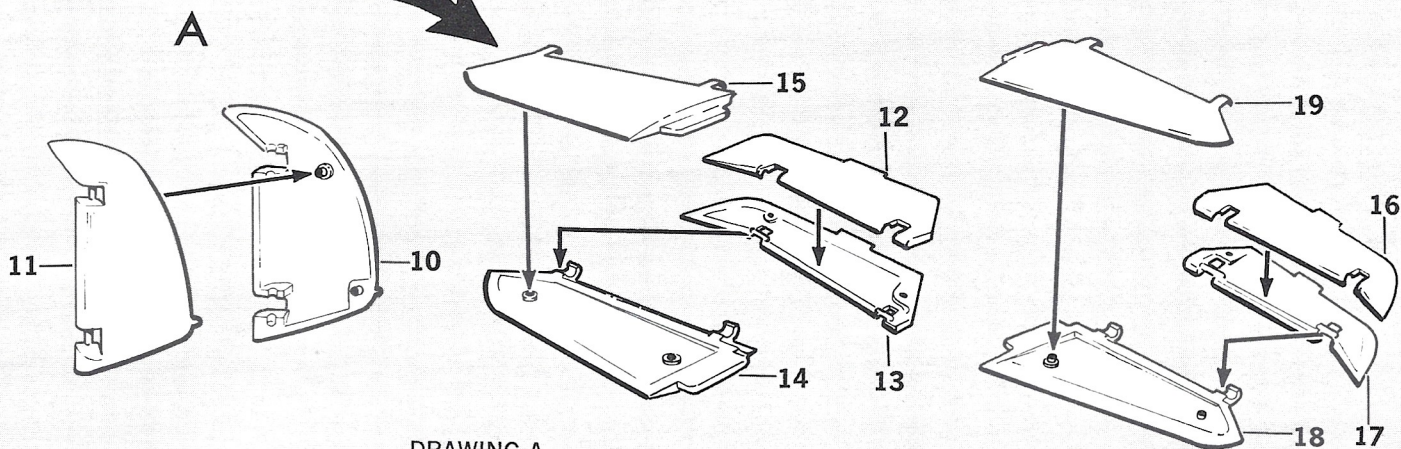


DRAWING B

- 7 RIGHT ENGINE MOUNT
- 8 LEFT ENGINE MOUNT
- 9 MACHINE GUN (2 Parts)

5. Cement RIGHT (7) and LEFT (8) ENGINE MOUNTS to ENGINE.
6. Cement two MACHINE GUNS (9) to TOP of ENGINE.

## 2 TAIL SURFACES



- 10 RUDDER RIGHT
- 11 RUDDER LEFT
- 12 RIGHT ELEVATOR TOP
- 13 RIGHT ELEVATOR BOTTOM
- 14 RIGHT STABILIZER BOTTOM
- 15 RIGHT STABILIZER TOP
- 16 LEFT ELEVATOR TOP
- 17 LEFT ELEVATOR BOTTOM
- 18 LEFT STABILIZER BOTTOM
- 19 LEFT STABILIZER TOP

DRAWING A

1. Cement RIGHT (10) and LEFT (11) RUDDER Sections together.

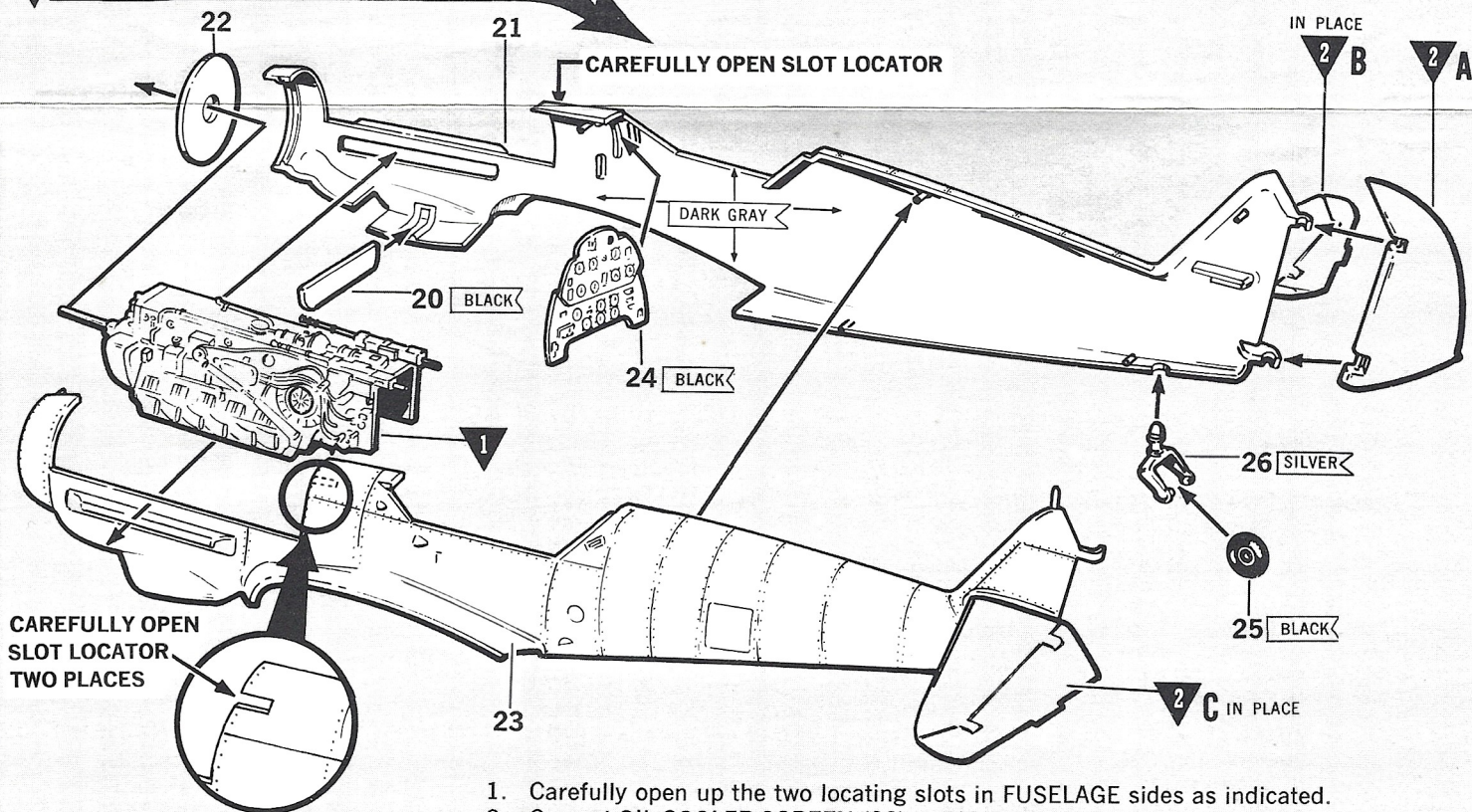
DRAWING B

2. Cement TOP and BOTTOM of RIGHT ELEVATOR Parts (12) and (13) together.
3. Cement RIGHT STABILIZER TOP (15) and BOTTOM (14) together trapping ELEVATOR between parts.

DRAWING C

4. Assemble LEFT ELEVATOR and STABILIZER in the same way as RIGHT SIDE using ELEVATOR Parts (16) and (17) and STABILIZER Parts (18) and (19).

## 3 FUSELAGE ASSEMBLY



CAREFULLY OPEN  
SLOT LOCATOR  
TWO PLACES

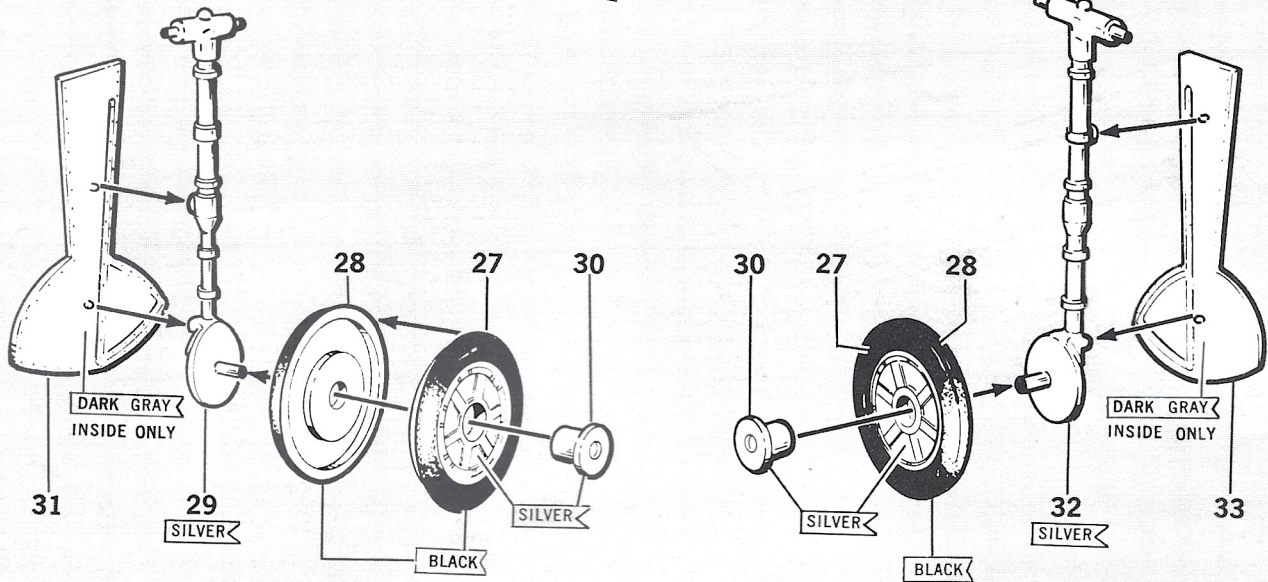
- 20 OIL COOLER SCREEN
- 21 RIGHT FUSELAGE
- 22 FUSELAGE FRONT
- 23 LEFT FUSELAGE
- 24 INSTRUMENT PANEL
- 25 TAILWHEEL
- 26 TAILWHEEL STRUT

1. Carefully open up the two locating slots in FUSELAGE sides as indicated.
2. Cement OIL COOLER SCREEN (20) to RIGHT FUSELAGE (21).
3. Place EXHAUST STACKS through RIGHT FUSELAGE opening. Hold ENGINE in position and cement FUSELAGE FRONT (22) to RIGHT FUSELAGE and FRONT of ENGINE.
4. Place RUDDER on RIGHT FUSELAGE Locators and cement LEFT FUSELAGE (23) to RIGHT SIDE. **DO NOT ALLOW CEMENT TO TOUCH RUDDER** or it will not move.
5. Cement INSTRUMENT PANEL (24) to inside of FUSELAGE.
6. PRESS DO NOT CEMENT TAILWHEEL (25) INSIDE TAILWHEEL STRUT (26). Cement STRUT to FUSELAGE.
7. Cement STABILIZER Assemblies from STEP 2 to FUSELAGE.

# 4 LANDING GEAR ASSEMBLY

## RIGHT SIDE GEAR

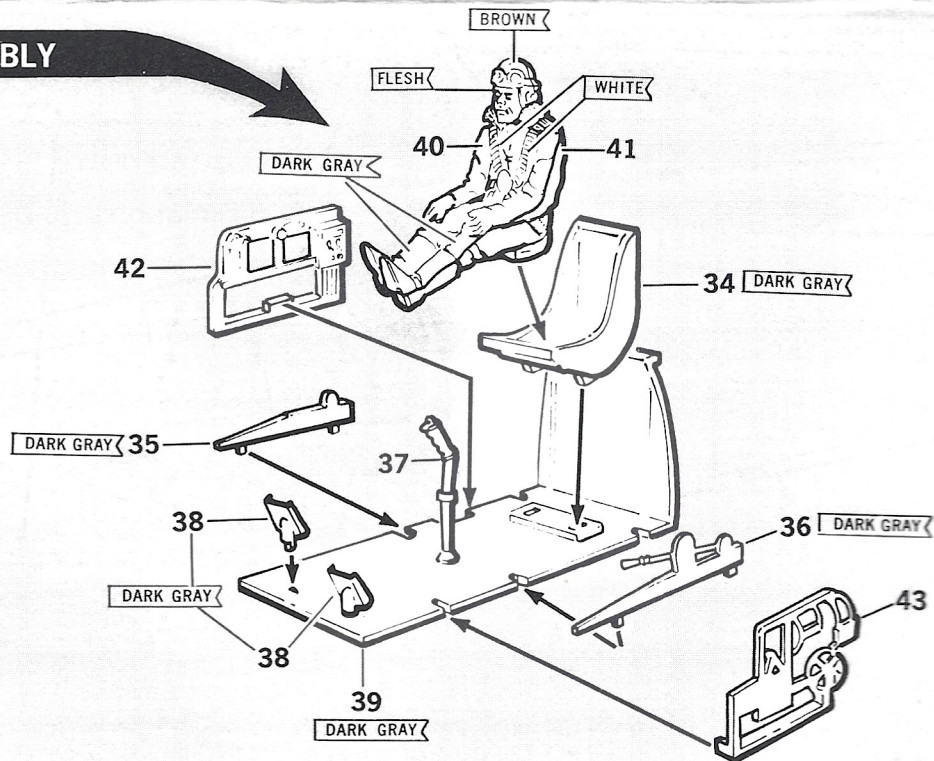
## LEFT SIDE GEAR



- 27 OUTSIDE WHEEL HALF (2 Parts)
- 28 INSIDE WHEEL HALF (2 Parts)
- 29 RIGHT MAIN GEAR STRUT
- 30 WHEEL HUB
- 31 RIGHT STRUT DOOR
- 32 LEFT GEAR STRUT
- 33 LEFT STRUT DOOR

1. Cement two OUTSIDE WHEEL HALVES (27) to the INSIDE WHEEL HALVES (28).
2. **PLACE, DO NOT CEMENT** one WHEEL on the RIGHT MAIN GEAR STRUT (29). Carefully cement a WHEEL HUB (30) to pin on strut. **DO NOT LET CEMENT TOUCH WHEEL** or it will not turn.
3. Cement RIGHT STRUT DOOR (31) to RIGHT STRUT.
4. Assemble LEFT MAIN GEAR in the same way using WHEEL HUB (30), GEAR STRUT (32) and STRUT DOOR (33).

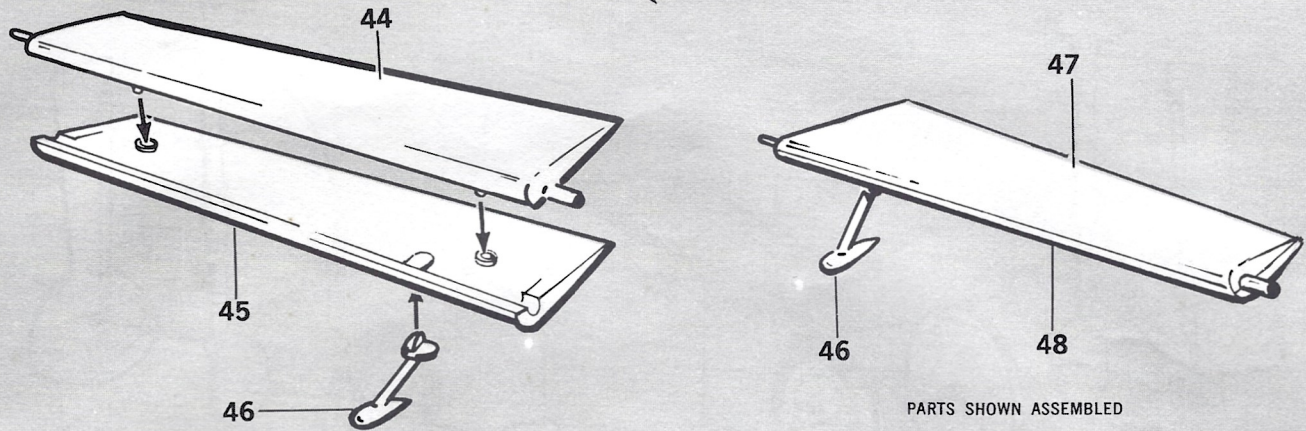
# 5 COCKPIT ASSEMBLY



- 34 SEAT
- 35 SEAT FRAME RIGHT
- 36 SEAT FRAME LEFT
- 37 CONTROL STICK
- 38 RUDDER PEDALS (2 Parts)
- 39 FLOOR
- 40 PILOT FRONT
- 41 PILOT BACK
- 42 COCKPIT SIDE PANEL RIGHT
- 43 COCKPIT SIDE PANEL LEFT

1. Cement the SEAT (34) and SEAT FRAMES RIGHT (35) and LEFT (36) to FLOOR (39).
2. Cement the CONTROL STICK (37) and RUDDER PEDALS (38) to FLOOR.
3. Cement PILOT FRONT (40) to BACK (41) then cement PILOT to SEAT.
4. Cement RIGHT and LEFT COCKPIT SIDE PANELS (42) and (43) to FLOOR.

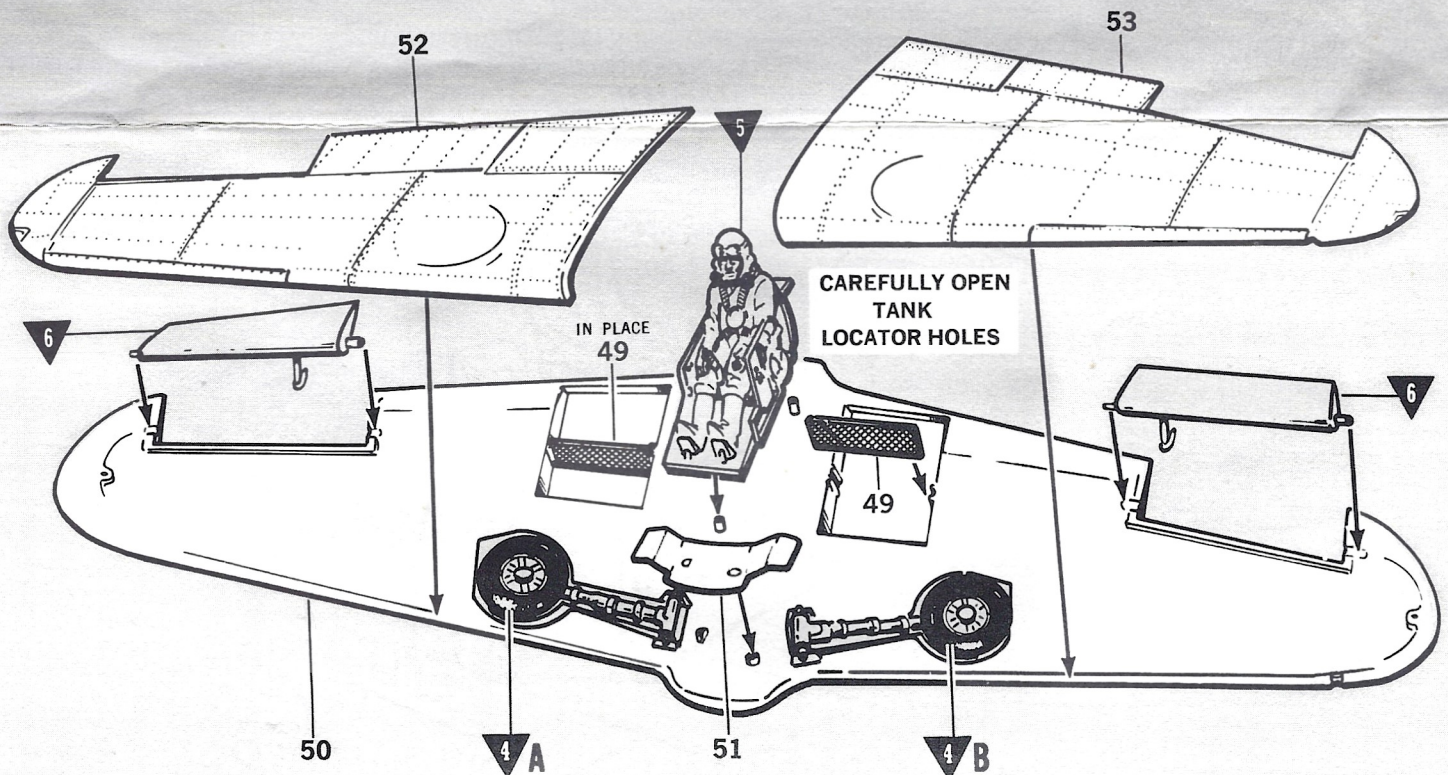
## 6 AILERON ASSEMBLY



- 44 RIGHT AILERON TOP
- 45 RIGHT AILERON BOTTOM
- 46 STATIC BALANCE (2 Parts)
- 47 LEFT AILERON TOP
- 48 LEFT AILERON BOTTOM

1. Cement RIGHT AILERON TOP (44) to BOTTOM (45).
2. Cement LEFT AILERON TOP (47) to BOTTOM (48).
3. Cement a STATIC BALANCE WEIGHT (46) to BOTTOM of both AILERONS.

## 7 WING ASSEMBLY



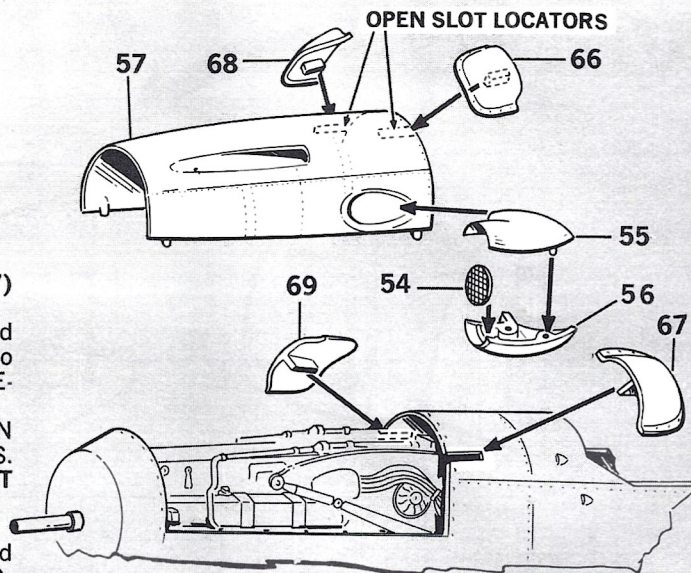
- 49 RADIATOR SCREEN (2 Parts)
- 50 LOWER WING
- 51 GEAR RETAINER
- 52 RIGHT WING TOP
- 53 LEFT WING TOP

1. Cement two RADIATOR SCREENS (49) in LOWER WING Section (50).
2. **PLACE, DO NOT CEMENT MAIN GEAR Assemblies in LOWER WING Locators then cement GEAR RETAINER (51) to LOWER WING. DO NOT LET CEMENT TOUCH GEARS.** Allow to dry thoroughly before lowering GEARS.
3. **PLACE, DO NOT CEMENT RIGHT AILERON** in BOTTOM WING and cement RIGHT WING TOP (52) to the BOTTOM WING. Do not apply cement in area of AILERON HINGE pins.
4. Assemble LEFT AILERON and TOP WING (53) to the BOTTOM section of WING.
5. Cement COCKPIT Assembly to pins on BOTTOM WING.

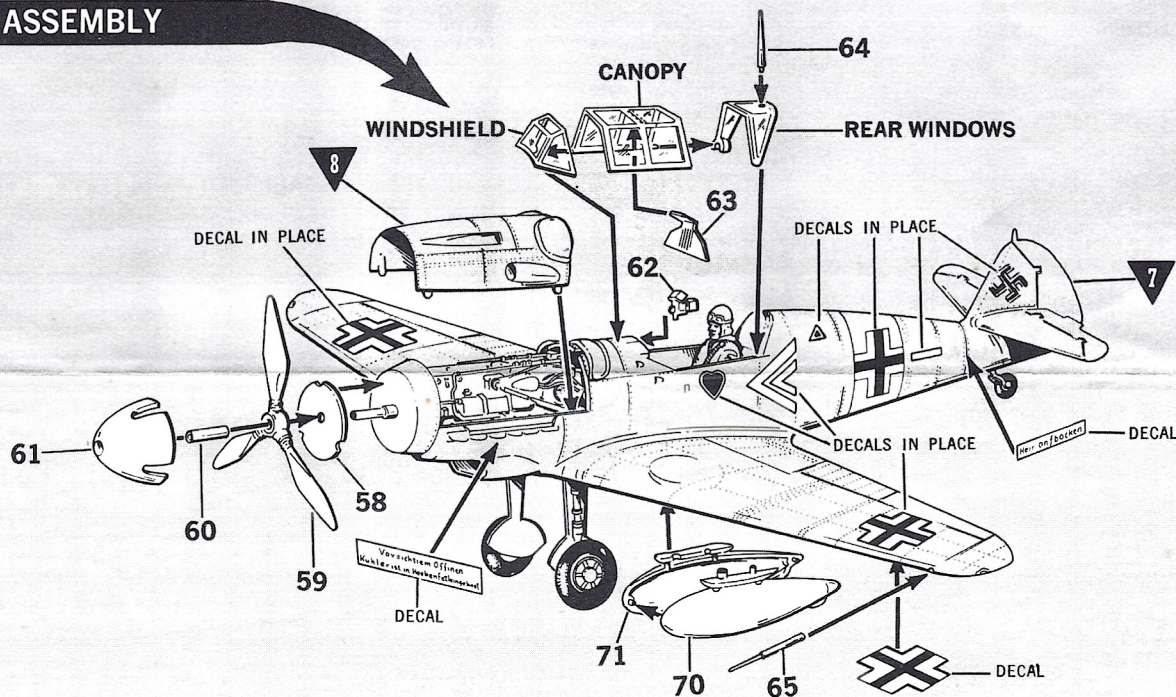
# 8 GUN FAIRINGS

- |                    |                            |
|--------------------|----------------------------|
| 54 INTAKE SCREEN   | 66 FRONT GUN FAIRING LEFT  |
| 55 AIRSCOOP TOP    | 67 REAR GUN FAIRING LEFT   |
| 56 AIRSCOOP BOTTOM | 68 FRONT GUN FAIRING RIGHT |
| 57 ENGINE COWLING  | 69 REAR GUN FAIRING RIGHT  |

- Carefully open up the two locating slots in ENGINE COWLING (57) to match those that were opened in FUSELAGE in STEP 3.
- Be sure slots in COWLING line up with those in FUSELAGE and then cement REAR GUN FAIRINGS LEFT (67) and RIGHT (69) to FUSELAGE. Front edge of FAIRING should match edge of FUSELAGE.
- With ENGINE COWLING in place, check alignment of FRONT GUN FAIRINGS LEFT (66) and RIGHT (68) to REAR GUN FAIRINGS. Then cement FAIRINGS to ENGINE COWLING. **DO NOT CEMENT FAIRINGS** to each other or COWLING to FUSELAGE or COWLING will not be removable to display ENGINE detail.
- Cement INTAKE SCREEN (54) between AIR SCOOP TOP (55) and BOTTOM (56). Cement assembly to side of ENGINE COWLING (57).



# 9 FINAL ASSEMBLY



- |                       |
|-----------------------|
| 58 SPINNER BACK PLATE |
| 59 PROPELLER          |
| 60 CANNON             |
| 61 SPINNER            |
| 62 GUN SIGHT          |
| 63 ARMOR PLATE        |
| 64 ANTENNA MAST       |
| 65 PITOT TUBE         |
| 70 DROP TANK LEFT     |
| 71 DROP TANK RIGHT    |
| WINDSHIELD CLEAR      |
| CANOPY CLEAR          |
| REAR WINDOWS CLEAR    |

- Open up two locating holes at center of LOWER WING SECTION to match pins on DROP TANK LEFT HALF (70).
- Spread WING slightly and cement FUSELAGE in position.
- PLACE, DO NOT CEMENT SPINNER BACK PLATE (58) and PROPELLER (59) on PROPELLER SHAFT.** Apply a small drop of cement in large hole in CANNON (60) and press on shaft. **DO NOT LET CEMENT TOUCH PROPELLER** or it will not turn.
- Cement SPINNER (61) to BACKING PLATE (58).
- Cement GUN SIGHT (62) to INSTRUMENT PANEL.
- Cement WINDSHIELD to FUSELAGE.
- Cement ARMOR PLATE (63) to CANOPY. **PLACE, DO NOT CEMENT FORWARD HINGE PIN** of CANOPY in WINDSHIELD Locator. Cement REAR WINDOW to FUSELAGE locating REAR CANOPY pin in position as WINDOWS are positioned on FUSELAGE. CANOPY will now swing to the right to show COCKPIT detail.
- Cement ANTENNA MAST (64) to WINDOW SECTION and PITOT TUBE (65) to LEFT WING.
- Cement DROP TANK HALVES LEFT (70) and RIGHT (71) together and to BOTTOM of WING.

Final painting after assembly. Typical BF-109-G Camouflage pattern as used by the Luftwaffe was Upper Wing and Tail surfaces, Dark-Green and Black-Green in a "splinter" pattern. The Fuselage Top and Sides have Black-Gray "splotches" (see Box Cover). After paint is dry apply Decals.