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Messerschmitt Bf-109G-2

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N° 1303

Messerschmitt Bf-109G-2

the world in scale

The Bf-109G2 pictured in this book is an authentic World War II aircraft. It was restored to original condition by a dedicated group of individuals and organizations determined to see the project through, at a considerable sum of money. Every conceivable aspect of the plane was meticulously researched in order to reach the pristine condition represented within the pages of this book. This aircraft, now fully operational and in perfect flying condition, now resides in England.

ACKNOWLEDGMENTS

A large number of individuals contributed to the compilation and production of this book. To those who tirelessly researched the wartime specifications of the Messerschmitt; to the dozens of individuals and organizations who financed and restored the aircraft to its authentic condition; to the reenactors who graciously gave of their time in posing for hundreds of photographs; to the flight crew and pilots who made the aircraft available for study; and to the many researchers and photographers who made this book possible, we would like to extend our sincere gratitude.

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Full View

The Messerschmitt lineage of Bf-109s began with the "A" model. The "E" and "F" series aircraft were the first produced in large numbers. The updated "G" series - the Gustavs - started with the G-1, a pressurized version. A total of 167 G-1s were built. The G-2 series was the first model to be produced in large numbers, with a total of 1,586 G-2's being constructed for wartime use.

Production of G-2s started in May 1942 through February 1943. The Wiener Neustadter Flugzeugverke, Erla, and Messerschmitt Regensburg shared the production. G-2s were delivered to the Jagdgeschwader in early summer of 1942.

Rustsatze were equipped with some aircraft, some field equipped or factory installed. These modifications followed the model name with a slash. Some G-2s were fitted with underwing gondolas carrying MG151/20 cannons for increased firepower. These were designated Bf-109 G-2/R6. Some were fitted with R1a ETC5001xb bomb racks for a 250kg bomb. An ETC 50 VIId could be added as an R2.

This popular aircraft saw action on all fronts. Like the example in this book, the G-2 had a tropical version. The features of the G-2 trop version included (most noticeably) the sand/dust filter for the supercharger; the umbrella sunshade (a necessity for the scorching North African climate), noted by the two teardrop-shaped bulges on the lower cockpit; sand proofing rubber seals around hydraulic cylinders (not visible); and survival gear and Kar98k rifle stowed in the fuselage.

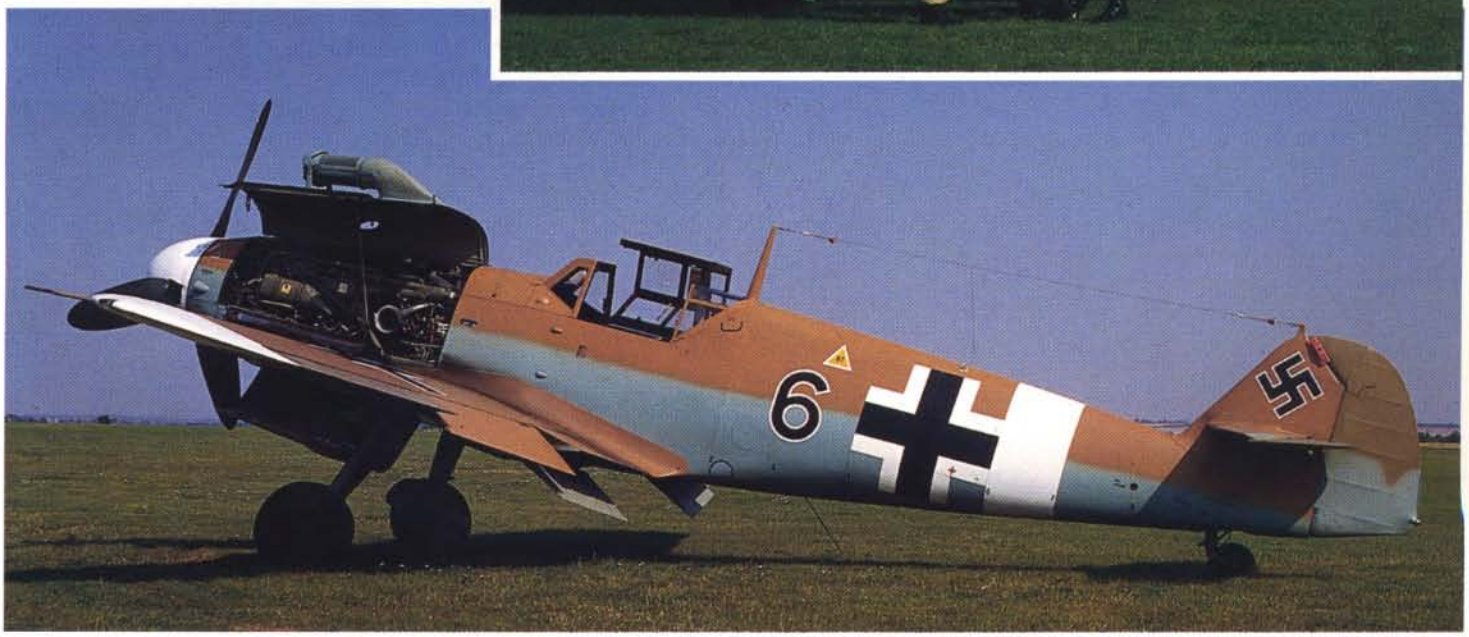
The total weight of the G-2 was around 2,550 kg with loaded weight of around 3,000 kg. The DB605A-1 could output 1,475 hp and drove a VDM9-12087 propeller burning B4 fuel. It cruised at around 550 km/h with a max at around 630 km/h, with a landing speed of 140 km/h. The G-2 had a service ceiling of 11,200 meters and a range of 700 kilometers.

The G-2 had the DB605A powerplant, boasting much more power than its predecessor the F-4, which had a DB601E.

This example sports RLM79 Sand Brown upper surface with RLM 76 Light Blue Grey lowers. The Mediterranean theater bands were painted in white.

The armament on the G-2 included a coaxial MG151/20 cannon firing through the spinner. Two MG17s atop the cowling fired through the propeller arc. These could carry 500 rounds each of 7.92 ammunition. In addition to standard armament, the G-2 could be equipped with R6, and underwing gondola of an MG151/20 for each wing.

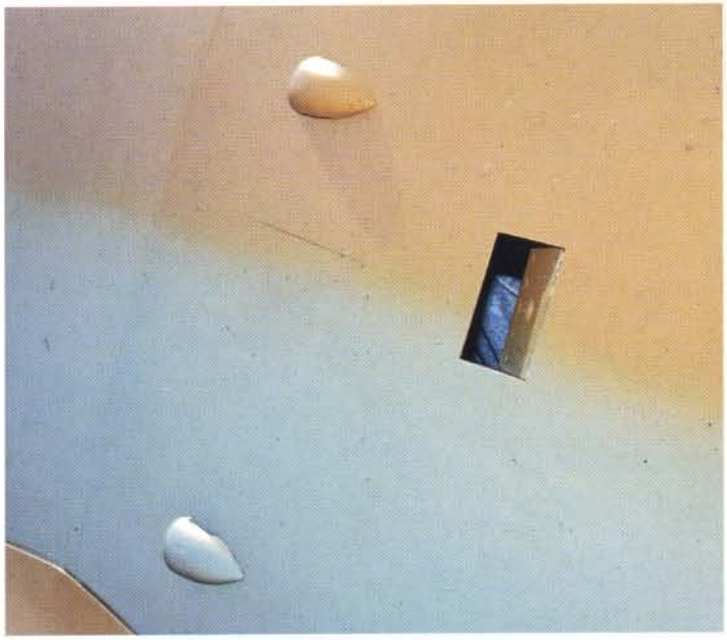
The G-2 had a heavier canopy framing than the F before it.



Fuselage

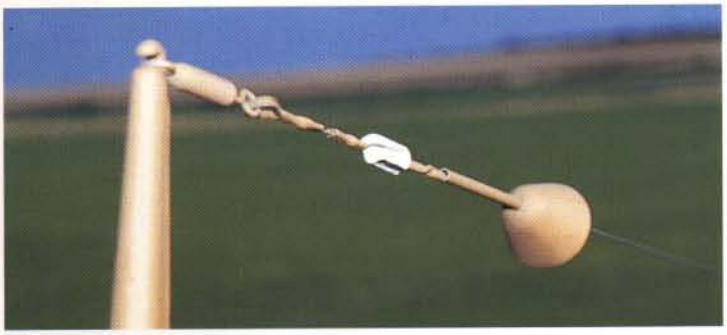
The aircraft nameplate, stating:
Manufacturing Plant - Erla Machineworks of Leipzig;
Model No. BF109G-2TROP (Tropical); Work No. 10639; Year Built - 1942; Factory Release Date - 13 October 1942.

Antenna mast for the FuG16 radio. Tail fin is airfoil shaped in cross-section with the port side rounded and starboard flat.

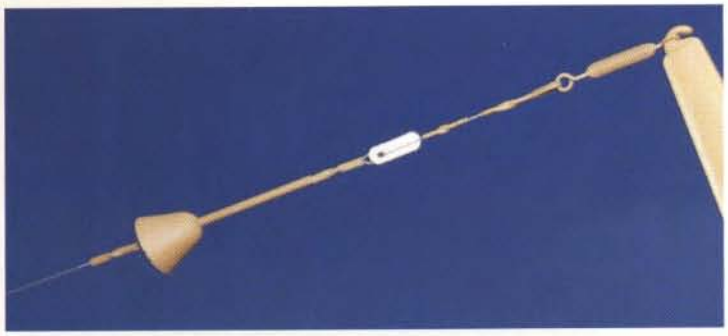


The two teardrop shapes are the parasol mounts found on tropical versions. The small door is a fresh air inlet for the cockpit port and starboard, sometimes port only, sometimes none at all.

Aerial leadin, offset to the port side located at the 5th bulkhead.



Antenna mast for the FuG16.



Antenna aerial and mast. Clear stretched sprue replicates the aerial and dabs of white paint simulate the insulators.

Port side, rear wing root and fuselage: The half-moon hinged panel is sometimes marked "Einstiegklappe", translated "step-board". The black numbers mark fuselage frames. The circular hatch accesses the master compass.

Filler hatch for the fuselage tank (400 liter). The yellow triangle indicates octane and grade: 87 octane and "B4" fuel type.

The marking "WE" is the fuselage horizontal datum. "WE" stands for "Waagererecht Einstellung". These are placed in five positions on the port side. They are used to line up the airframe in the "in-flight" attitude on the ground.

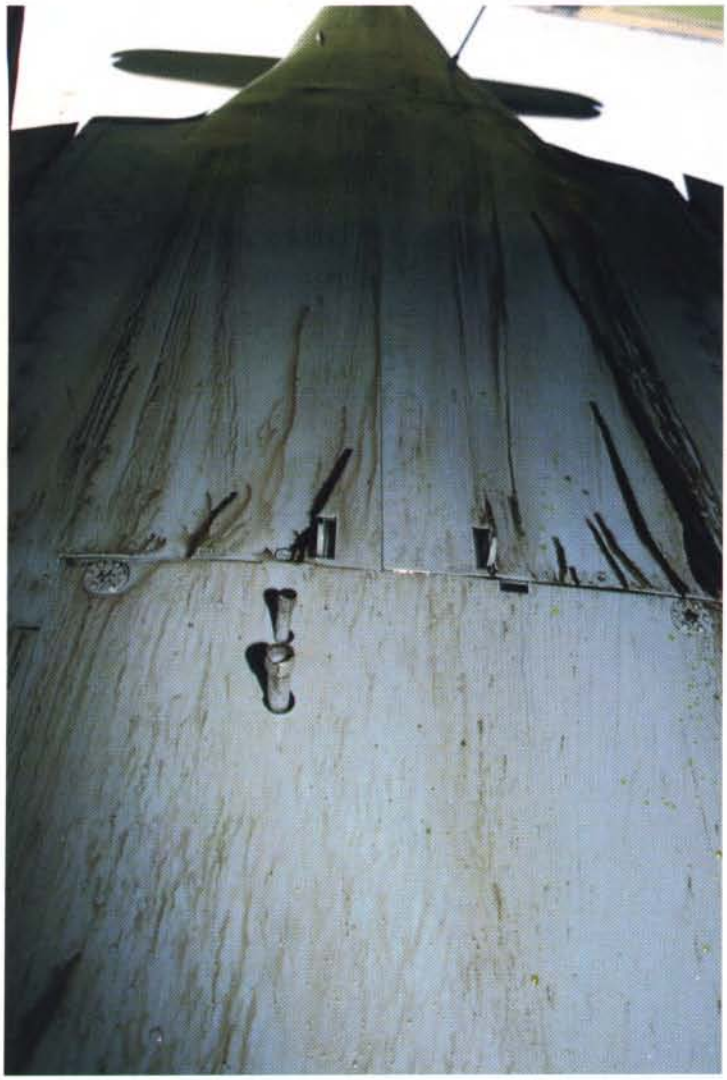
The trailing antenna for the FuG25 IFF.

Starboard side: Half-moon is a hinged footstep. The large circular hatch marked "Sauerstoff fur Atemgerat" translates "Oxygen for Breathing Apparatus". Sometimes also printed underneath was "Vor Anschluß ab ol u Fett", translated "Before connecting remove oil and grease". The hatch is sometimes painted blue and white. Behind the smaller hatch is the power socket, normally painted in red and marked 24 volts.

Insertion hole for engine starter crank; below it is a cowling latch. Below the front windscreen is the cockpit air intake.

Located on the top of the fuselage, just ahead of the windscreen, are the hinged handholds for hoisting one-self up.

Hinged handhold to climb aboard both port and starboard. "Hier Eingreifen" translates "Grip Here". Note the 'flush rivet' surface.



Underside view showing the two tubes which connect the 300-liter drop tank. Note the oil streaks that traveled in the slipstream, a fair amount of weathering especially for a well maintained airplane. Imagine a late war aircraft when cleaning and appearance were not a priority!

On the #3 bulkhead, the fuel vent is on the port side. On the starboard side, the FuG25 IFF antenna. Note how far the oil streaks reach!

Messerschmitts from early on were notorious for their oil leaks and this pristeen example is no exception.

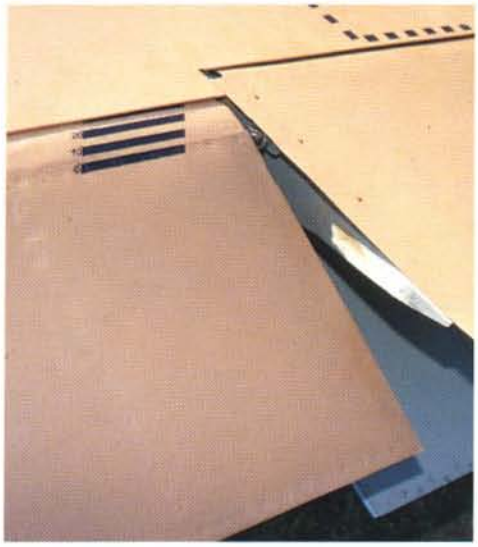
Even in very brief use, this immaculately preserved airplane belches and leaks oil.

Closeup of the trailing antenna for the FuG25 IFF and the hatch to access the FuG IFF radio. Note how far the oil streaks traveled.

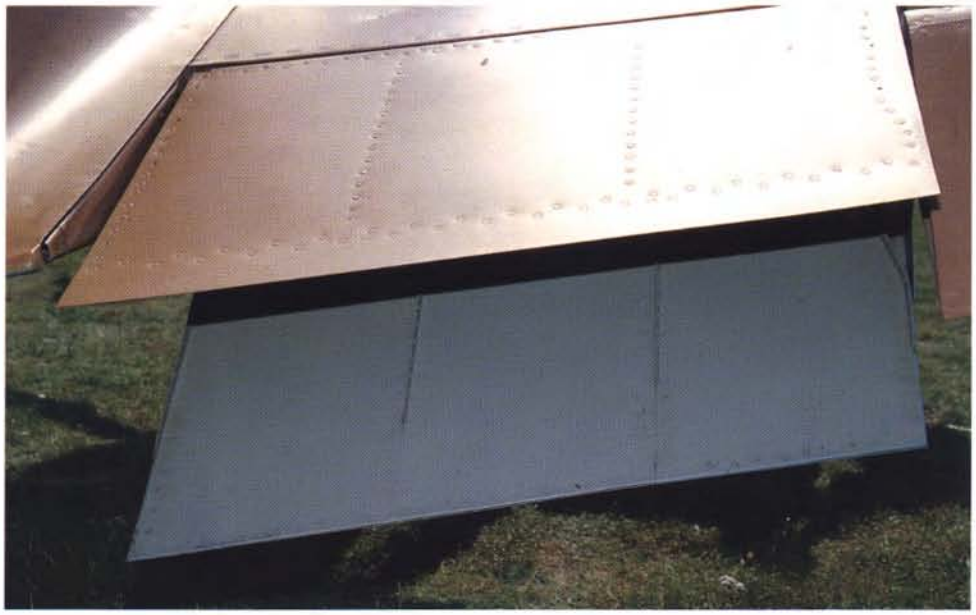
Closeup of the 300-liter drop tank fuel lead-in tubes. The attachment hooks for the ETC 500 rack are visible.

Pipes for the 300-liter drop tank and two hooks to attach the drop tank rack. The two large bulges cover the wing to fuselage bolts. Note the oil streaks.

Wings



Painted on the port wing only, the four black lines are 'flap angle indication markings' sometimes painted in white.

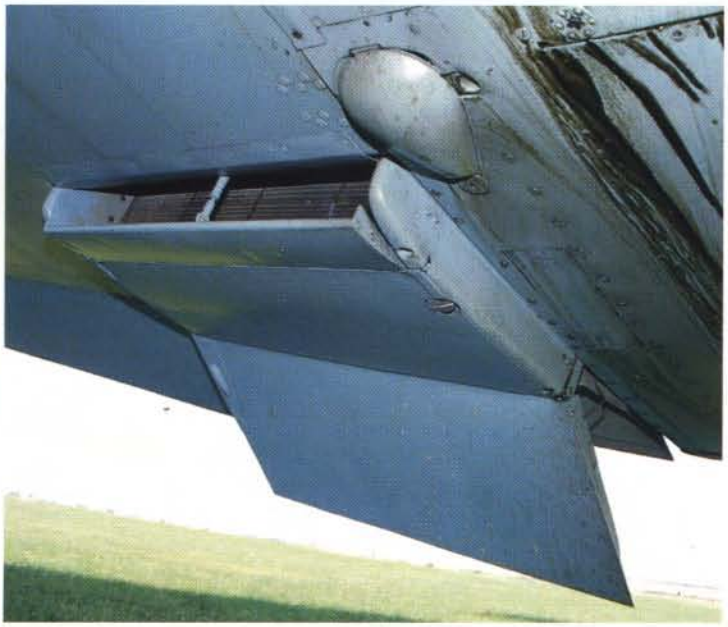


The split flaps that function as radiator shutters and supplemental landing flaps.

Radiator shutter hinge points.

Exit view of the radiator. These split shutters double as landing flaps.

Closeup of the radiator/flap shutters. Note the oil streak dragged to the rear of the plane by the slipstream.

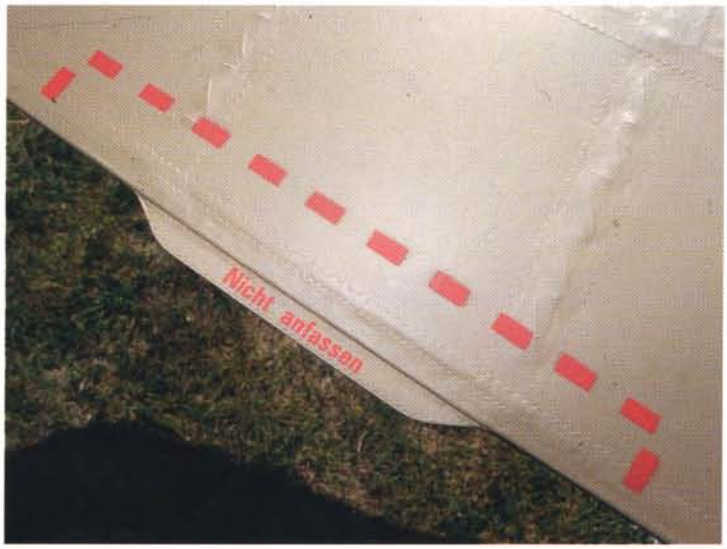


View of the radiator. The bulge covers the wing to fuselage attachment bolt. Note the oil streaks present on this meticulously maintained machine.

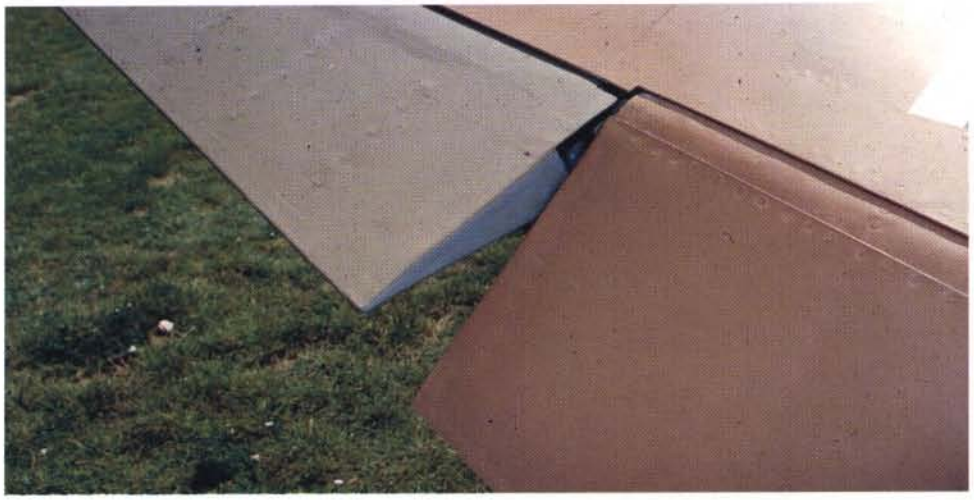
Closeup of intake aperture and connecting rod.

Radiators are set partially inside the wing to lower their profile. Actuating rod for the intake sutter can be seen. Circular hatch allows access to the radiator.

The dashed lines, sometimes in red, indicate areas where walking is allowed. The hatch behind the crewchief's feet is the ammunition supply hatch for the 20mm coaxial MG151/20 cannon.



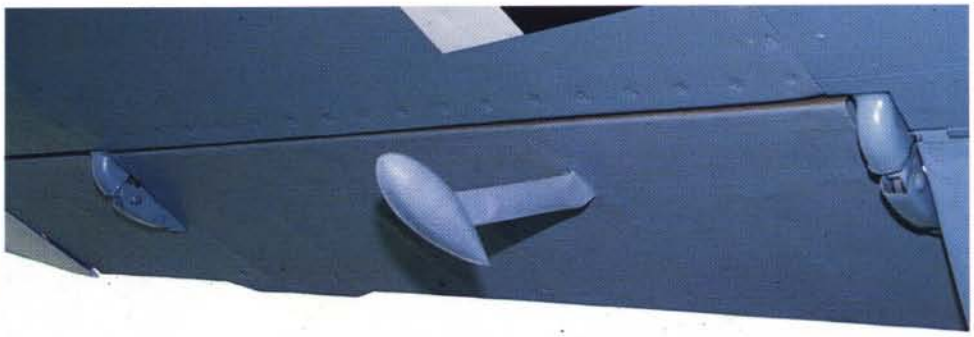
Closeup of the port wing trim tab on the aileron. The extended position (tab) can be trimmed by clamps or even a hammer. This helps fine tune the aircraft handling characteristics. "Nicht anfassen" translates "Do Not Touch".



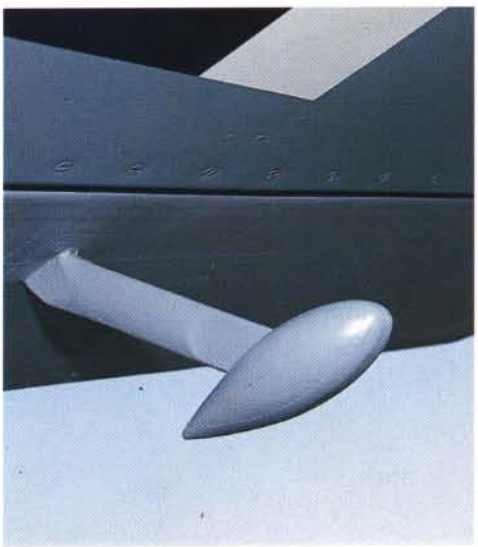
Here is the port wing aileron and outboard flap.

Starboard side mass balance located under the aileron.

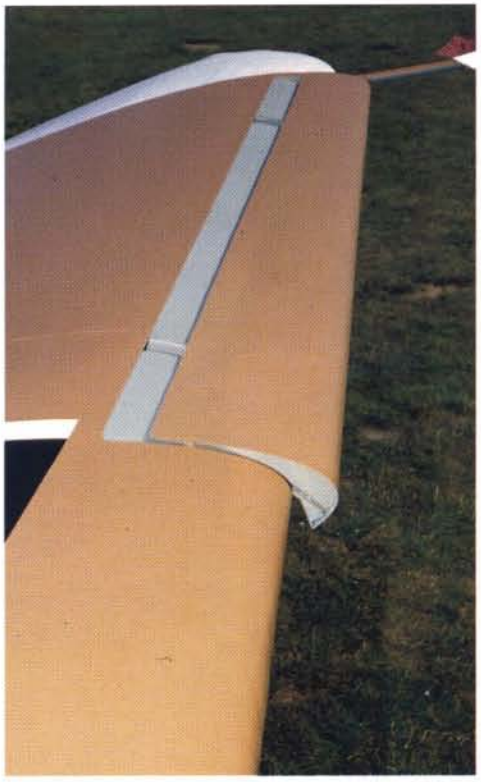
Hinge juncture between the outboard flap and aileron on the port side.



Starboard side mass balance under the aileron along with the two hinges.



Here is a closeup of the mass balance located on the aileron. These help counter the effort needed on the control stick.



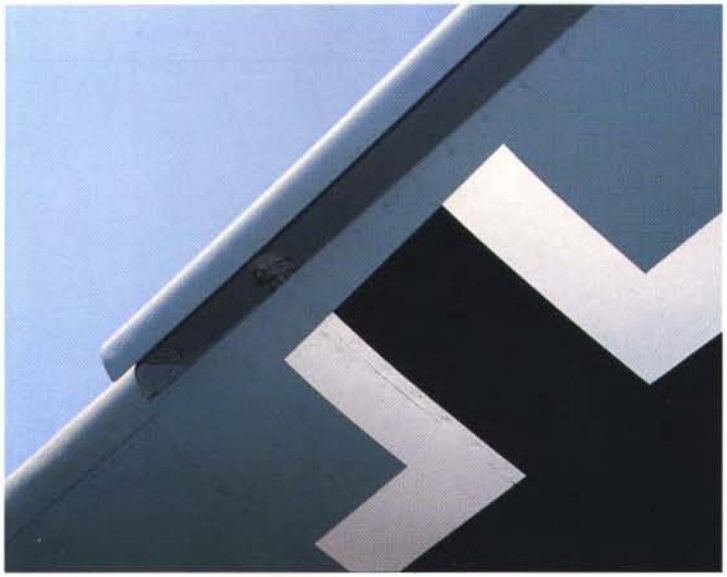
Leading edge of the port wing: Here the Handley-Page (gravity controlled) automatic slats are in the extended position. At the top, the pitot tube (airspeed indicator) can be seen.

Closeup of the port navigation light.

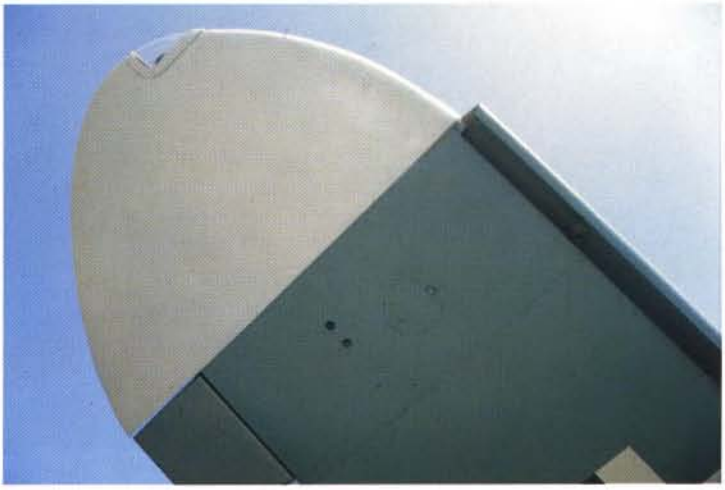
Closeup of the starboard navigation light.

Handley-Page automatic slats are gravity operated. While the airplane gains speed, they travel back into their seat and complete the airfoil shape.
Conversely, while slowing down, they slide forward, creating greater wing surface and altering the airfoil for greater lift at lower speeds. At the static position, they are fully extended.

Underside of the Handley-Page automatic slats.

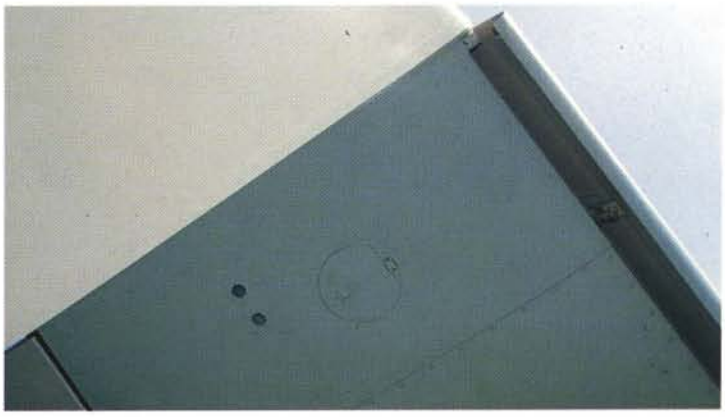


Port view of the Handley-Page automatic slats.



Starboard wingtip circular utility hatch. Note the Handley-Page gravity operated wing slats in the extended position.

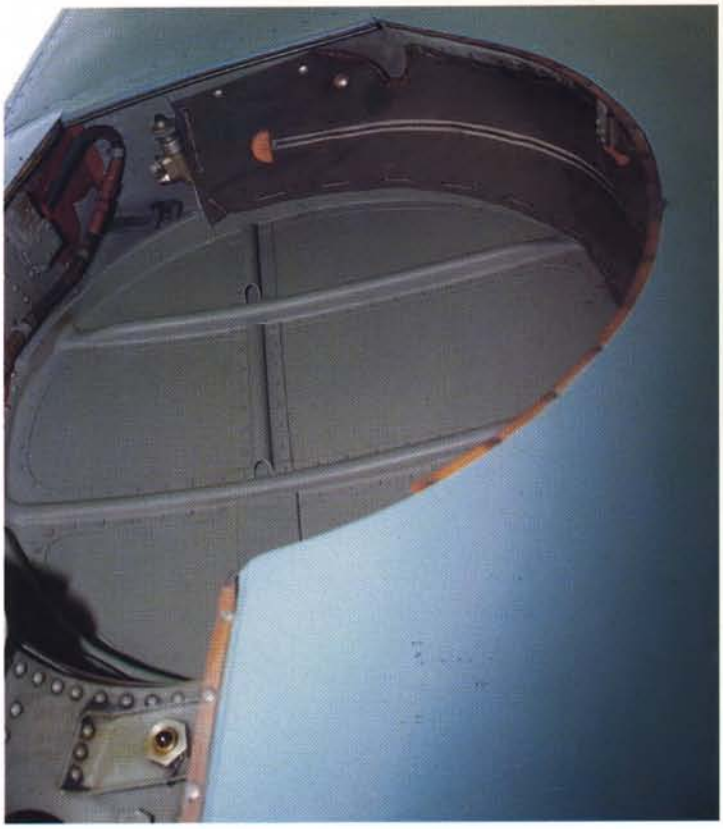
Closeup view of the pitot tube complete with protective boot and "don't bump your head" flag!



Landing Gear

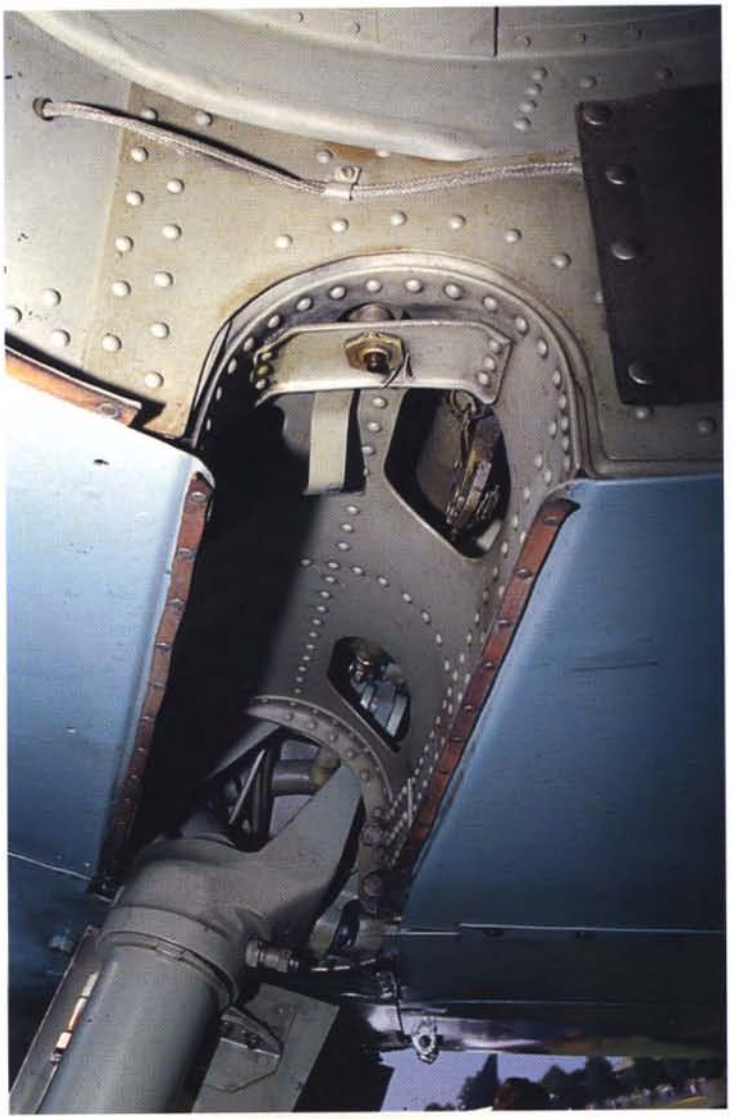
Port side landing gear showing brakeline. Main wheels are 660x160mm. Red mark is a wheel/tire slip indicator. Small tube is the coolant drain (both sides). The wheels are cast; later models had wider and machined wheels.

Top view of the tire. Note the leather-covered brake line and rubber sleeve covering the oleo.



Above : Starboard landing gear attachment point. Brake line is visible. Note the leather weather stripping along the sides.

Left : Port side landing gear bay. Visible is the zippered canvas dust cover. The hose is part of the hydraulic system that activates the radiator flaps/shutters. Note the oil and grease stains around the rivets, as if a giant came along and applied a wash of Raw Umber!

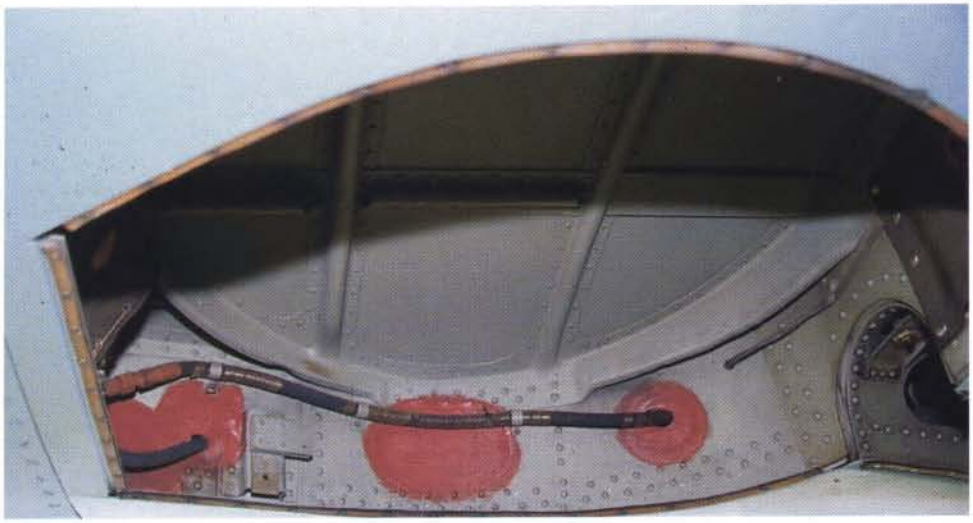


Port side landing gear attachments: locking mechanism, brake line, leather weather stripping are all visible. The pitot tube wires are visible.

Port side landing gear attachment. The brake line and leather weather stripping are both visible. Note despite the fact this plane is in extremely clean restored flying condition, it has a fair amount of weathering around panel joints and rivets. This can be simulated with a wash of Raw Umber.

Port side landing gear wheel well, complete with canvas dust cover and leather weather stripping. Radiator can be seen with its raising and lowering apperture. The bulge beside it covers the wing fixing bolt. The two pipes are the fuel feed lines which connect the 300-liter drop tank.

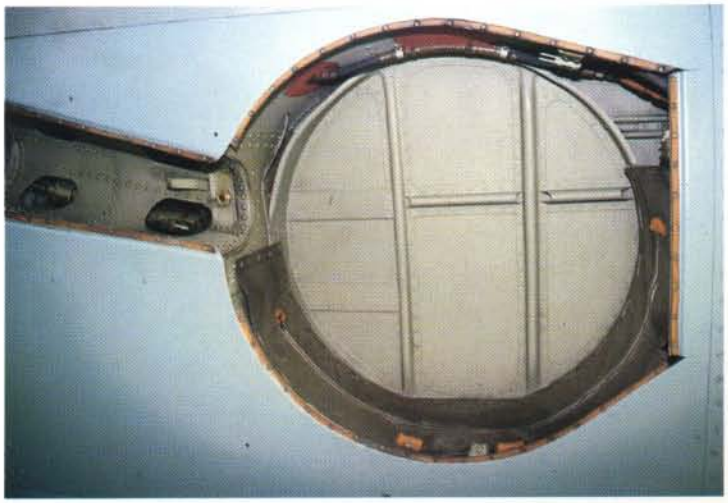
Port side view shows the zippered canvas dust cover. The hose is the radiator/flap shutter hydraulic line.



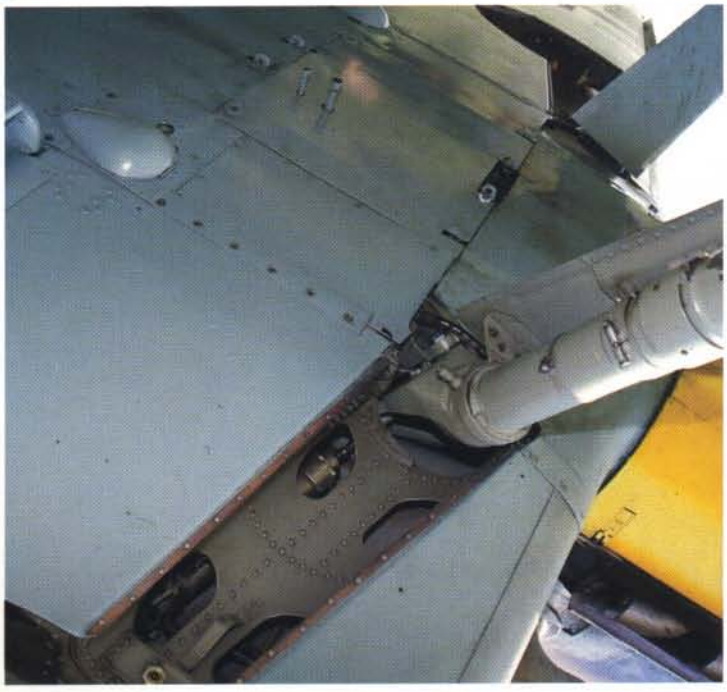
Closeup view of the radiator/flap hydraulic line. Note the oil and grease buildup around rivets even on this well-maintained machine.

Closeup of the starboard wheel well with the canvas dust cover and leather weather stripping. The intake doors of the radiator are shown in the lower position for maximum airflow. The two circular hatches access the radiator for maintenance.

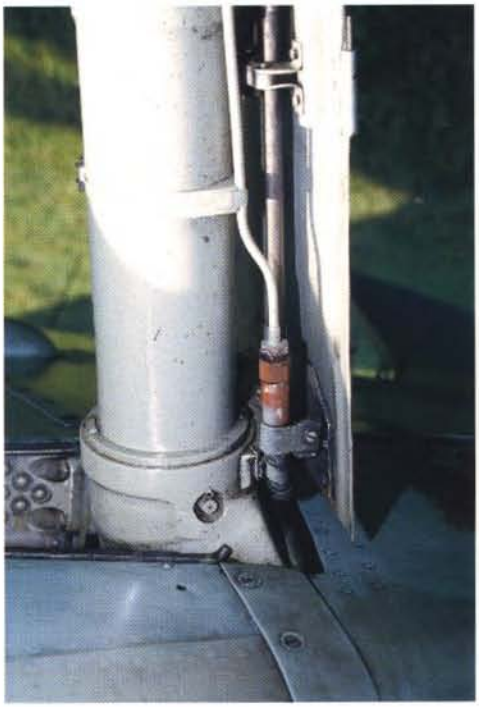
Closeup of the hydraulic hose that controls the radiator/flaps shutters.



Port side wheel well complete with zippered canvas dust cover, hydraulic hose that controls the radiator/flaps, and the leather weather seal surrounding the opening. Visible in the slots is the hydraulic accuating cylinder that raises and lowers the landing gear. Note the oil and grease buildup on the rivets - a good wash of Raw Umber easily replicates this effect.



Here the two large bulges cover the bolts which connect the wings to the fuselage. Visible in the landing gear troughs are the hydraulic cylinders that raise and lower the landing gear. The two pipes in the middle are the fuel feed and fuel vent lines which connect the 300-liter drop tank. Behind them are the attachment points for the ETC 500 rack.



Closeup of port side landing gear brake line. Note the staining of oil and grease buildup around panel lines and rivets even on this very clean example. This can be simulated by the modeler using a wash of Raw Umber. Can you imagine the weathering on a wartime airframe, when cleaning was a low priority?

Starboard side closeup of the tail wheel. Note the circular access hatch to the rear fuselage.

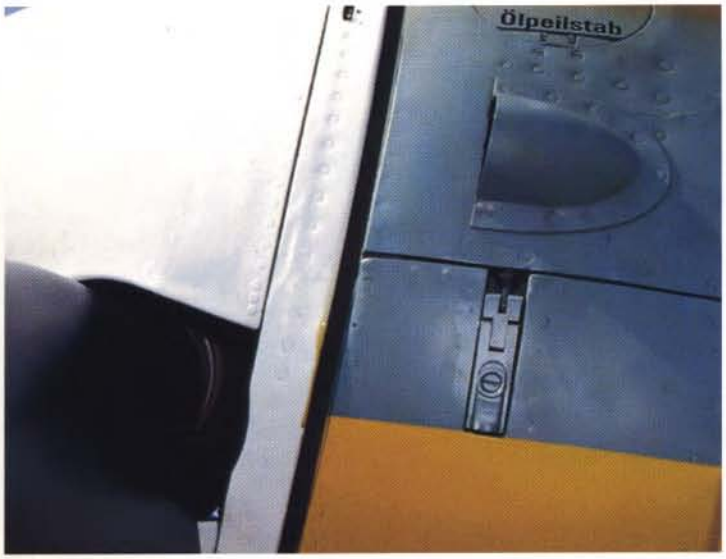
Tail wheel size is 350mmx135mm. Visible is the dust cover and the spring lock tail wheel mechanism. "Hier aufbocken" translates "Lift here", marking the black stripe ahead of the tail wheel. "Reifendruck 4.5 atu" translates to tire pressure 4.5 atmospheres. This G model sports faired over tail wheel opening.

The tail wheel on this example has a faired over tail wheel recess.

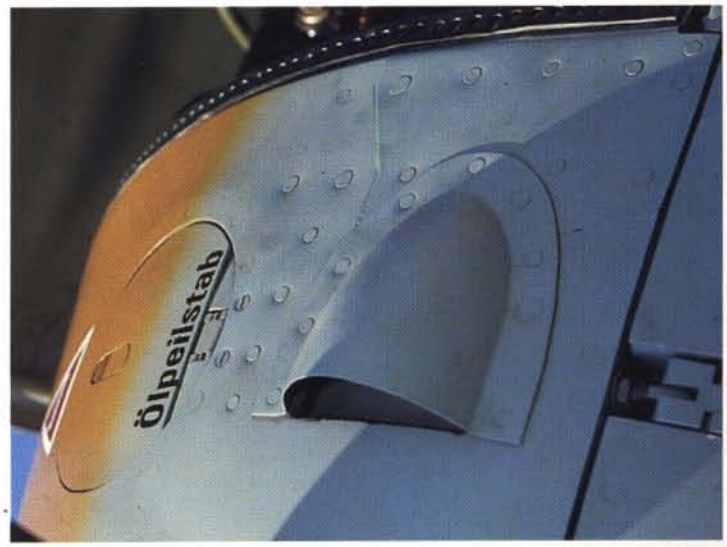
The small hole is a lifting point. The crew can insert a metal tube through the hole and lift the tail section. "Hier aufbocken" translates to "Lift Here" (both sides). The small bulge over the tail wheel covers rudder mechanism cables, external on early Bf-109Es.

Cowling

Closeup of spinner: In the center, you have the business end of the coaxial 20mm MG151/20 cannon that fires through the center of the crankcase in the engine.



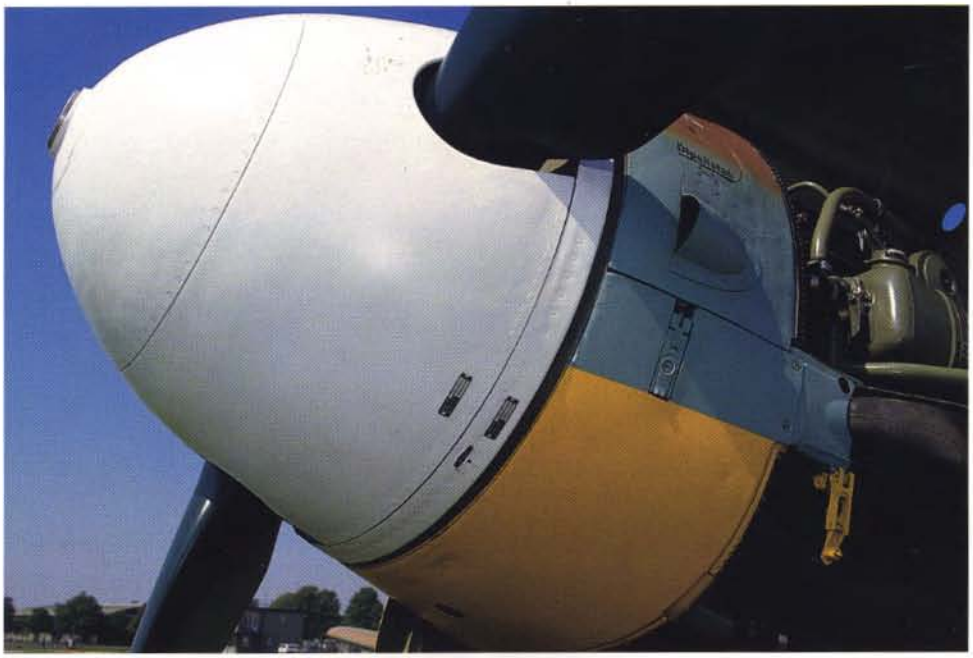
Closeup of the opening in the spinner. The prop on the Bf109G-2 is the VDM9-12087. On the cowling are the "Zu" fastener, engine cooling intake and oil filler hatch. "Olpeilstab" translates to oil level indicator.



Closeup of one of the four scoops added to the G-series in order to help cool the engine. Mismarked on this example the red and white triangle should indicate "Oil Filler"; instead, it shows a water methanol filler marker.

Closeup of nomenclature tags on the front and back plate of the spinner. Note the flush rivets that give Messerschmitts their sleek skin. Closeup also shows one of the cowl's "Zu" fasteners.

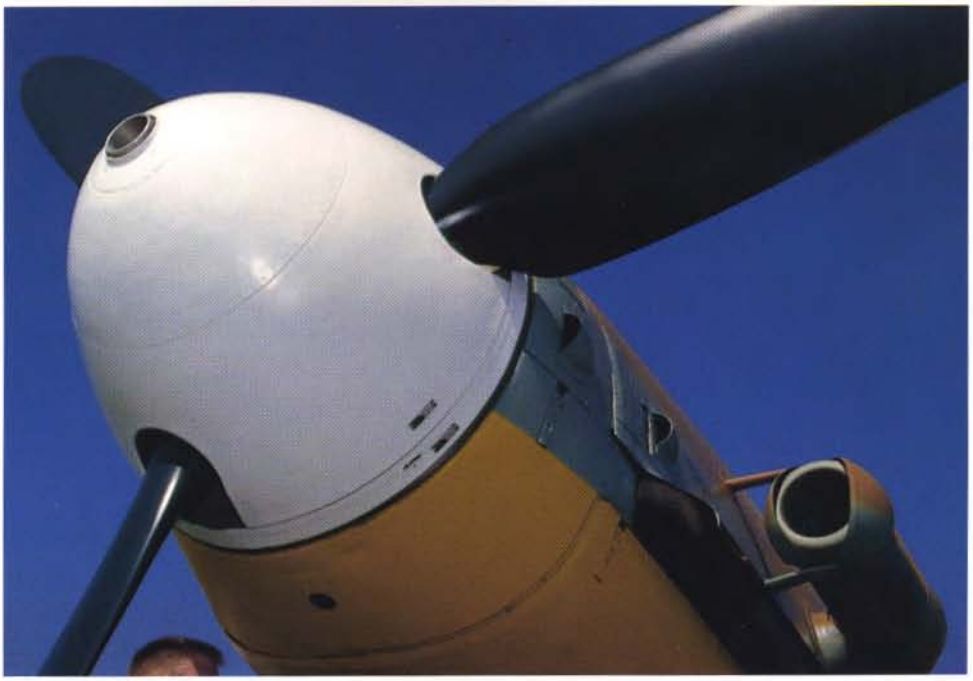
Spinner separation line can be seen. The two scoops are additions on the G-series and help cool the engine. The small hole on the underside is an oil vent.



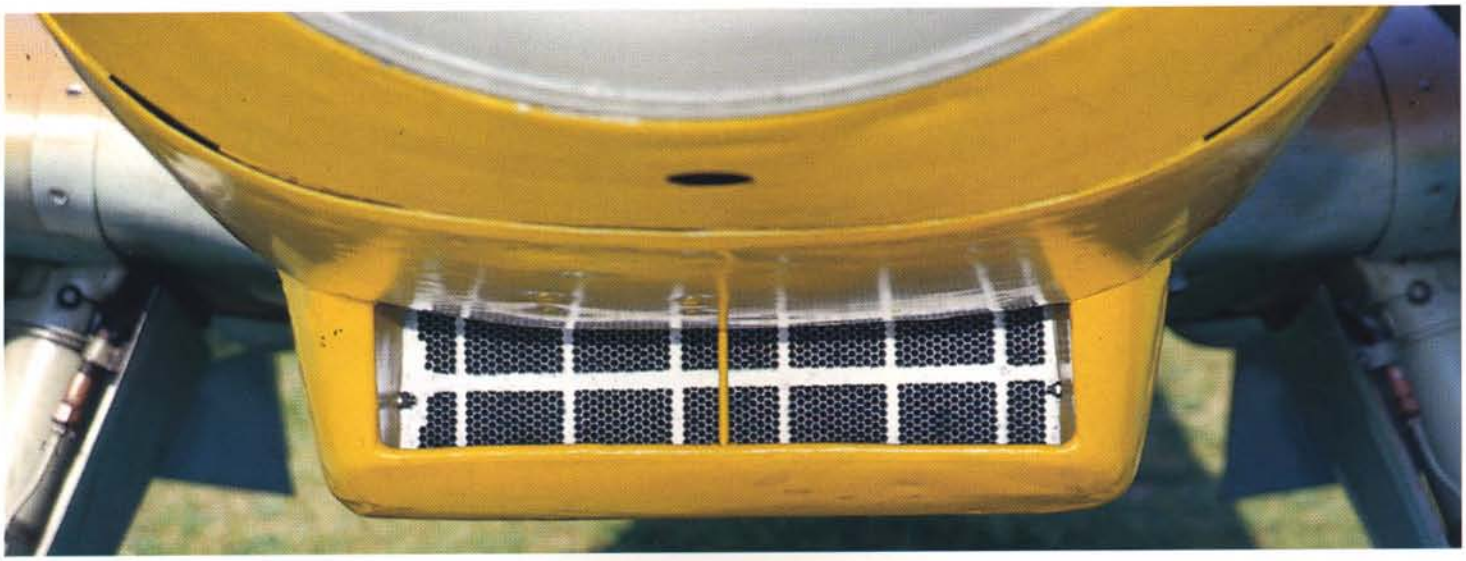
Modeler's note: The cutouts in the spinner for the props are a cropped teardrop shape, not the ovals found in most kits. Nomenclature tags are seen on the front and back plates of the spinner. Visible is the hole cutout for the oil vent.

Closeup of the variable pitch VDM9-12087 props.

Note the cutout in the spinner for the prop blade, shaped like a cropped teardrop, not a half-oval.

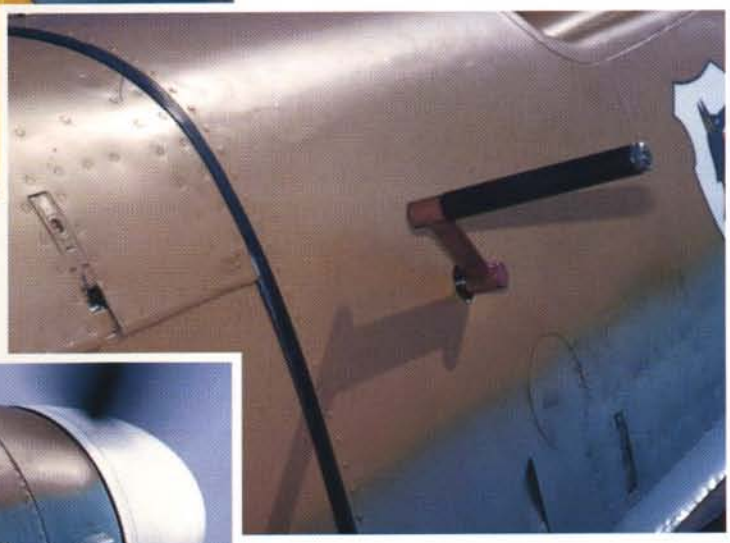


View of the variable pitch VDM9-12087 propeller; also visible is the early tropical sand filter (mesh style) in the open position.



Forward view looking into the oil cooler. The oil cooler was enlarged and deepened on the "G" model compared to the "F". Later "G" models such as the G-6 and G-10 had larger oil coolers and deeper intakes. Small circular cutout helped vent the oil tank.

Here is an excellent view of the early mesh type tropical filter. Note the weld seams on the exhaust pipes. The text on the lower cowling reads (top line in red) "Caution Upon Opening"; the lower black line reads "Cooler is built into cowling section".



Here the engine crank is in position; below it the engine inspection hatch is visible. The starboard gun trough is for the MG17. Note the thick rubber gasket between the cowling and main frame.

Visible here is the hole for the starter crank. Below it the circular engine access hatch can be seen. Note the prominent gasket between the cowling and the main frame.

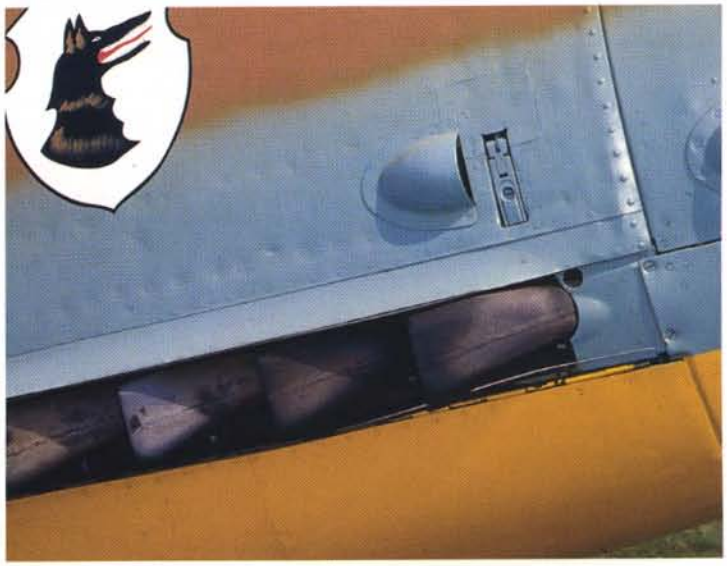
Engine starter crank in position. Note the three (one larger and two smaller) vents stamped into the cowling to release hot gasses, located below and between the snap fasteners and engine hatch. Visible on the exhaust pipes are weld seams and directly below them on the starboard side is the piano hinge that lets the lower cowling swing open.

Gun trough for the MG17. Note the piano hinge between the port and starboard cowling panels.

Closeup view of the early mesh type super charger sand filter. Notice how it is anchored to the cowling. The data stencils describe the coolant mixture to be 50% glycol and 50% water.

Notice the burnt metal surrounding the exahust area, even though most exhaust stains are scrubbed away.

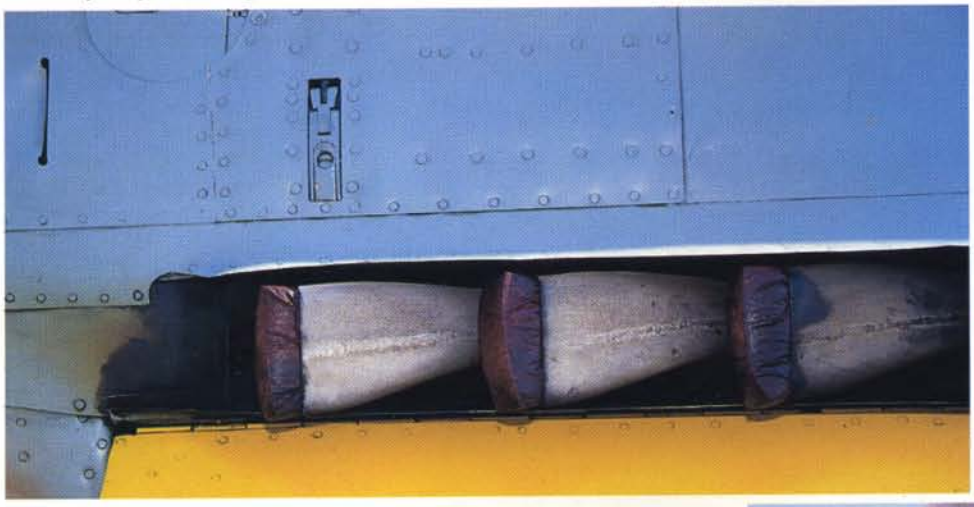
Notice the lower right four small "hot gas" vents stamped into the cowling.



Closeup of the two air scoops added to the "G" series. Visible is the piano hinge attaching the lower cowling to the starboard side. Note the weld seams on the exhaust pipes.

Closeup of piano hinge that attaches lower cowling.

View into the oil coooler. The Fo 870 was later to be replaced by the larger and deeper Fo 987 on the G-6 model.



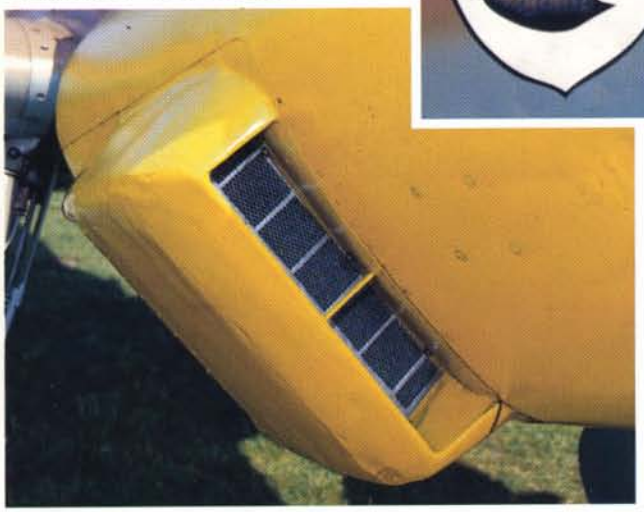
In this top view, the engine access hatch can be seen, along with the hot gas vent stamped into the cowling, "Zu" snap fastener, exhaust pipes (with protective boots), and the piano hinge attaching the lower cowling.

The space efficient and streamlined cowling fit the engine like a glove.

Nice view of the inside of how the supercharger intake seats onto the super charger. Note scorching from exhaust on the edge of the panel.

Closeup of the squadron insignia.

View inside the oil cooler.



The cowling was space efficient and wrapped tightly around the engine.

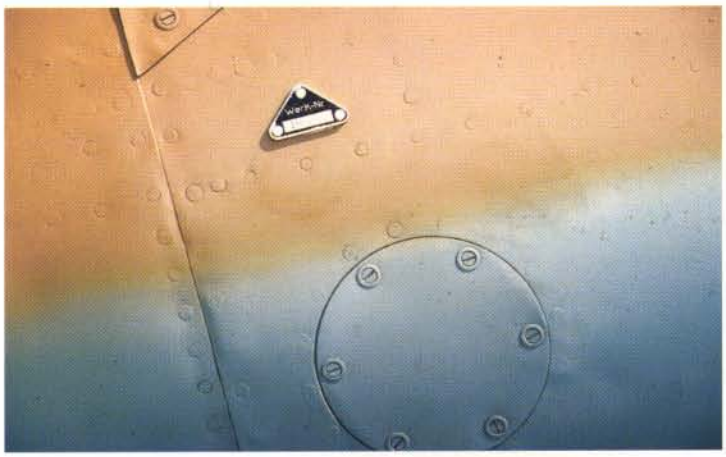
Tail

Rearward tail view, showing the size of the National Insignia cross.

View of the port side elevator.

View of the rudder and elevator.

A tube could be inserted through this hole and used to lift the tail off the ground. "Hier aufbocken" translates to "Lift here". Circular hatch allows access inside the rear fuselage.



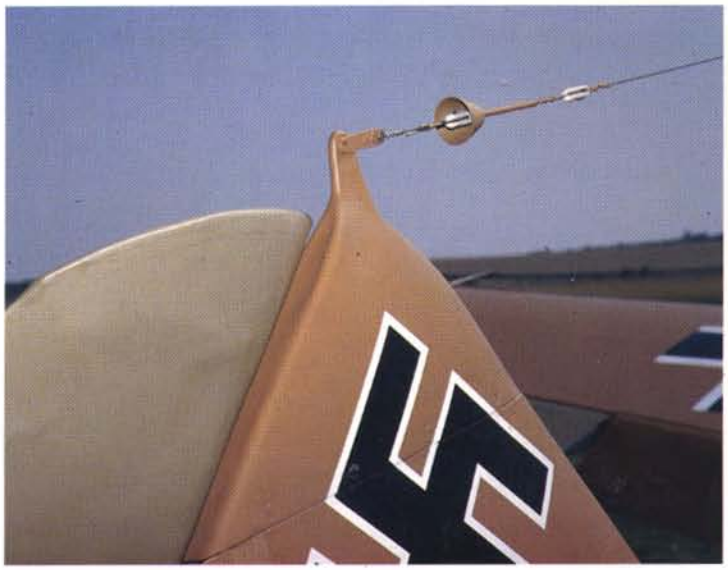
This circular hatch allows access to the rear fuselage. Nomenclature tag indicates "Werke Nummer", or production number - in this example, 10639.

The tail light. Modeler's note: This can be replicated with a small droplet of clear 5-minute epoxy glue.

The fixed position forward of the elevators can be moved up or down to trim the tail plane. The incidence (angle) can be set from a turn wheel inside the cockpit. The altered angle can be seen by the revealed blue paint under the elevator.

Underside starboard tail plane view.

Closeup of the stab's antenna mount.



The red clamp is a gust lock for the rudder. The altered tail plane incidence (angle) is visible by the blue paint being revealed under the wing root fairing.

Pilots

Pilots describing a dogfight. The pilot wearing the peaked officer's cap wears tropical flight gear with life vest. Other pilot wears conventional flight gear with leather flight jacket, pocketed trousers, and flares strapped around his boots.

The pilot and crewchief listen carefully to the revving engine. The crewchief is attired in a simple khaki work uniform and enlisted man's sidecap.

Pilot and crewchief performing preflight checks.

Luftwaffe Leutnant in regulation uniform and officer's cap with braiding.

Pilot entry was easily accessed in the Me109. Dressed in the tropical flight gear with "Mae West" life preserver, this pilot reaches for his officer's cap.

Nice view of the compact cockpit when the human form is added. The pilot wears his LKp S100 summer flying cap and tropical flight suit. Note the non-inflated "Mae West" life preserver, and the "KRETA" campaign cuff title on the left forearm for service in Crete.

The crew celebrates an aerial victory.

Pilot strapped in and ready for take-off. Note armoured headrest which offered the pilot protection from rear attack. He wears the leather Luftwaffe model LKp W100 winter flying helmet with the Auer goggles.

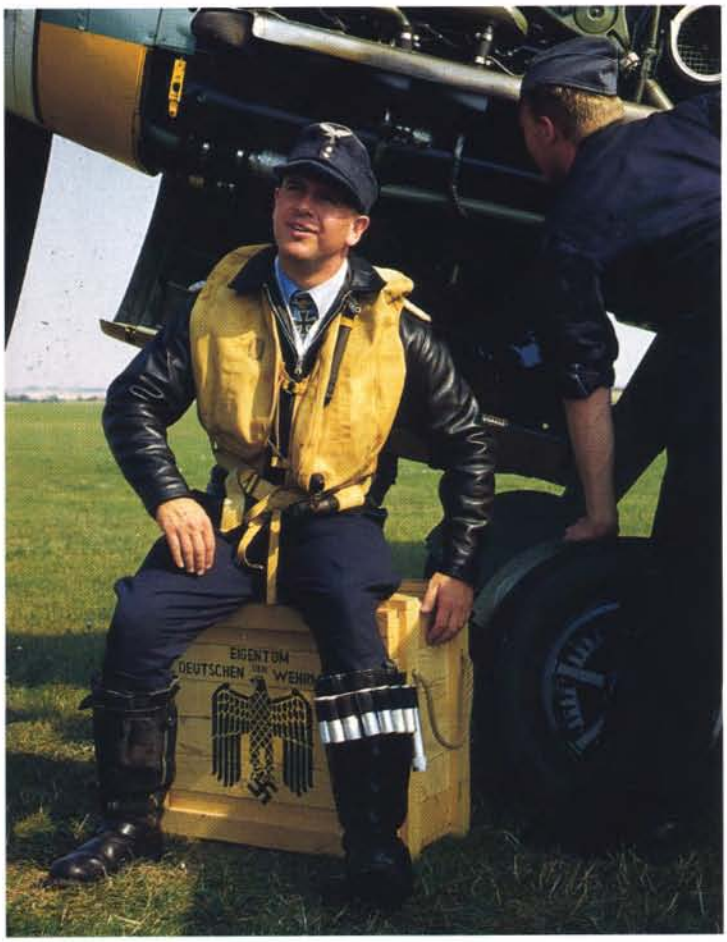
Pilot and crewchief performing preflight checks.

The cockpit is very compact and tight. The pilot wears his LKp S100 summer flying cap and tropical flight suit. Note the non-inflated "Mae West" life preserver.

The pilot secures the chinstrap on his LKp S100 summer cap.

Above : This Jagdflieger wears a 1943 softcap with epaulettes on his late war leather flight jacket. The "Mae West" life preserver inflates for flotation in the event of a bailout over water. He wears the officer's breeches with standard issue flying boots, with signal flares strapped around them. His sidearm is a Walther P38.

Left : The pilot wears his officer's peaked cap and tropical flight suit. Note the non-inflated "Mae West" life preserver, and the "KRETA" campaign cuff title on the left forearm for service in Crete. Clearly visible is the inflation device for the life preserver - a compressed CO2 bottle.



Top Left : Leutnant on the left wears the Fliegerbluse with all buttons inside to prevent snagging. He wears the Iron Cross 1st Class and mission badge on his left breast. Note the officer's boots. The Jagdflieger on the right wears a 1943 softcap with epaulettes on his late war leather flight jacket. The "Mae West" life preserver inflates for flotation in the event of a bailout over water. He wears the officer's breeches with standard issue flying boots, with signal flares strapped around them. His sidearm is a Walther P38.

This Jagdflieger wears a 1943 softcap with epaulettes on his late war leather flight jacket. The "Mae West" life preserver inflates for flotation in the event of a bailout over water. He wears the officer's breeches with standard issue flying boots, with signal flares strapped around them. The ground crewman wears standard Luftwaffe black coveralls.

Strapping in. The "Blackmen", as the Luftwaffe ground crewmen were affectionately known, were responsible for pre-flight checks and detailed maintenance.
One of the "Blackmen" conferring with the pilot. The pilot wears epaulettes denoting the rank of Oberst (Major).

Right : This Jagdflieger wears a 1943 softcap with epaulettes on his late war leather flight jacket. He holds a "Mae West" life preserver which inflates for flotation in the event of a bailout over water. He wears flying trousers with standard issue flying boots, with signal flares strapped around them. Note zipper and buckle detail of the leather jacket.

Pilot and crew chief wearing flight gear compatible with the North African climate.

Top Left : Crewman helping his pilot don his "Mae West" life preserver.

Above : The pilot climbs aboard his fighter. This Jagdflieger wears a 1943 softcap with epaulettes on his late war leather flight jacket. The "Mae West" life preserver inflates for flotation in the event of a bailout over water. He wears the officer's breeches with standard issue flying boots. The ground crewmen, or "Blackmen", wear standard Luftwaffe black coveralls.

Left and below : This Unteroffizier wears the typical attire for a ground chief. He wears the enlisted man's peaked cap and Fliegerbluse, with NCO piping around the collar and buttonhole ribbons for the Iron Cross 2nd Class and Eastern Front service. His "dice cup" boots are shorter and less elegant than the officer's version.

"Blackmen"

Here a "Blackman" cranks the powerful DB605A to life.

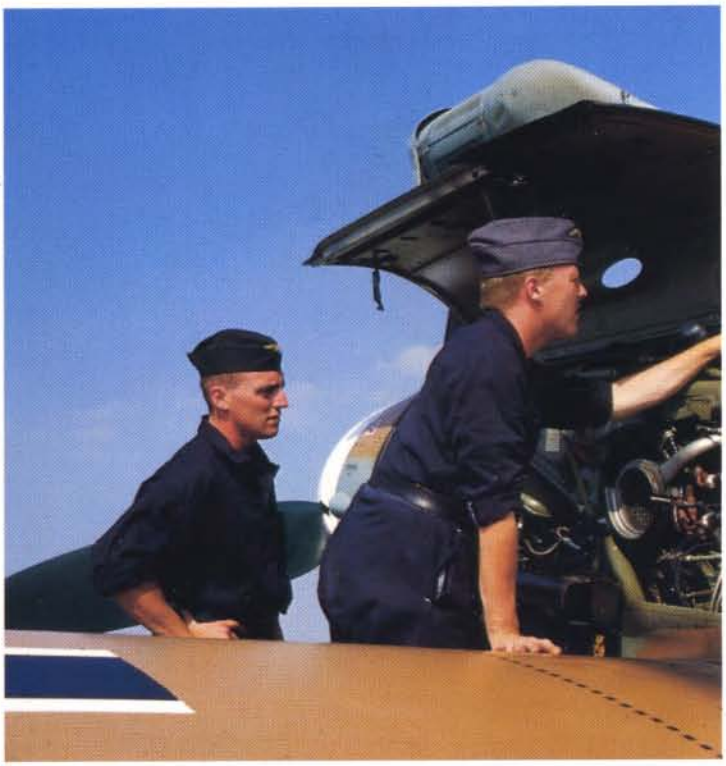
Left : Crew chief and pilot examine the fighter prior to take-off.

Luftwaffe crewmen were commonly referred to as "Blackmen" because of their black overalls. Here a "Blackman" removes the main fuselage panel.

The "Blackman" removes the fuselage panel which accesses the radio and compass. Survival gear and Kar98k rifle are also commonly stored on tropical aircraft in case of emergency landing in the barrens. The red cross denotes storage of a medical kit.

"Blackman" using the foothold in the fuselage while carefully avoiding the thin shet metal radiator/flap shutter. Access to the cockpit was simple due to the low design.

"Blackmen" at work on the DB605A engine.



More often than not the Balkenkreuz was painted after the aircraft was primered in the factory. Major insignia were then masked and final colors were applied.

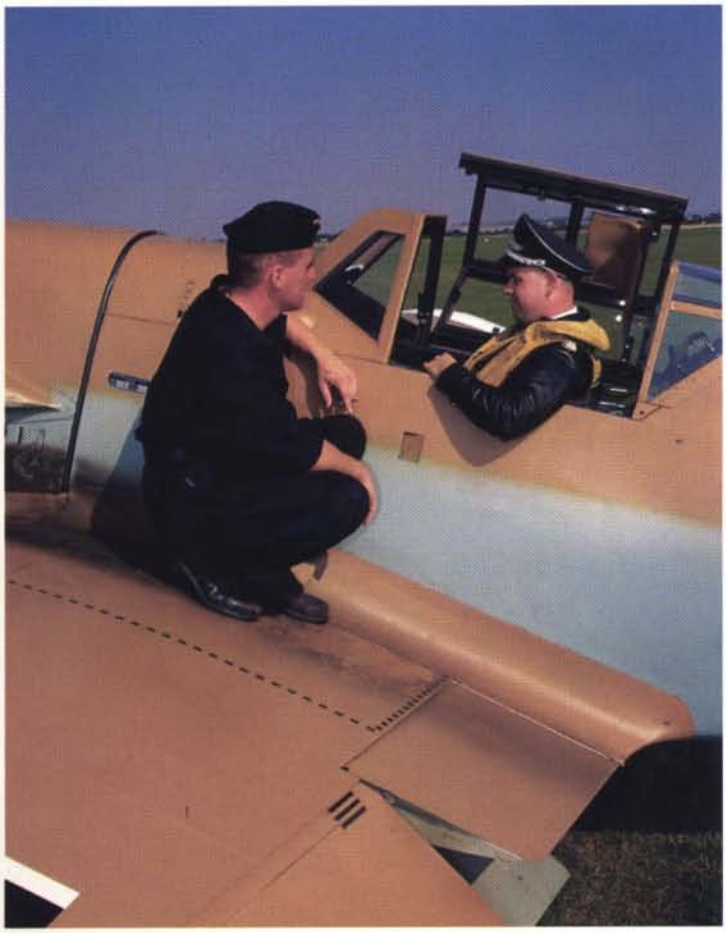
Pilot and crewchief inspect the starboard landing gear well.

Pilot and "Blackmen" inspect the aircraft.

This "Blackman" wears the sidecap with Luftwaffe eagle and "bullseye". The red gust lock holds the rudder in place when the aircraft is not in use.

Excellent view of the details of the black coveralls. This crewman rests against the 109's VDM9-12087 prop blade.

This "Blackman" stands near the tail and offers a good scale comparison.



Above : Pilot and ground crew exchange handling characteristics and changes that need to be made.

Below : Access to the engine is very simple due to the low design.

"Blackmen" wearing the standard issue coveralls with regulation boots and side-caps.

This "Blackman" wears a typical sidecap with the Luftwaffe eagle.

From Top to Bottom on the Left : The ground crew must do their job thoroughly and efficiently. Nothing could be worse than mechanical failure in the heat of battle.These views of crew and pilot offers a good scale comparison.

This "Blackman" rests in the shade with the latest copy of "Adler" (Eagle), the Luftwaffe's propaganda magazine.

Above Right and Bottom Left : This crewman wears the typical tropical flying gear. He wears the sand-colored sidecap and sand goggles. Note the tropical version of the Luftwaffe eagle on his shirt and cap, along with the canvas belt and regulation boots.

Pilot and crew member wearing the typical garb for the North African theater.

Cockpit

The "G" series introduced heavier canopy framing.

The small tube running the radius of the windscreen dispenses washing fluid.

The frontal windscreen boasts 90mm bulletproof glass.

Top view of the canopy. Note the crude weld seams.

Right : Rear view of armored headrest.

The colored rings around critical gauges give the pilot quick glance location.

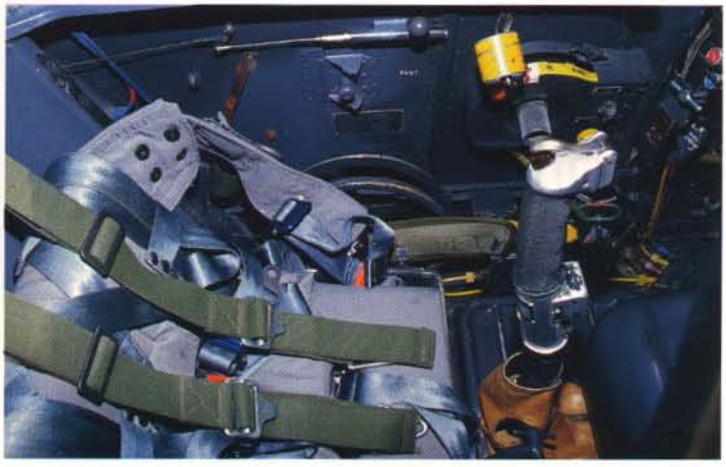
Above : The two angle bars are handholds. The front windscreen is 90mm thick bulletproof glass. Alongside the inside frames are the map reading lights.

Right : Bf-109's had noticeably very cramped quarters.

The basic cockpit color is RLM 66 Schwarzgrau.

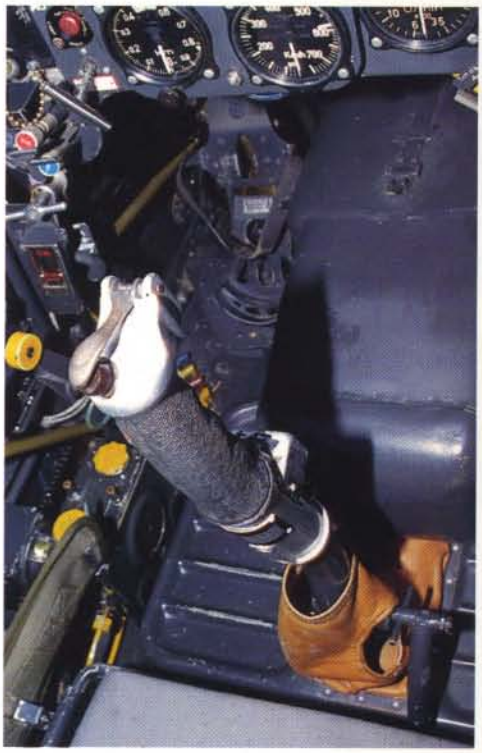
Circuit panel located on the starboard wall with the oxygen regulator below it. In the center are the coaxial 20mm MG151/20 breech cover and the control stick.

Pilot's seat. On the left are the landing flap control handwheel and to the right is the tailplane adjustment control wheel. Large yellow knob is the throttle lever; small yellow knob is the engine starter hand pump. On the right, in blue, are oxygen controls, hose and pressure gauge. The two small grey knobs on either side are the cockpit fresh air vents. Note they are staggered, starboard side slightly aft.

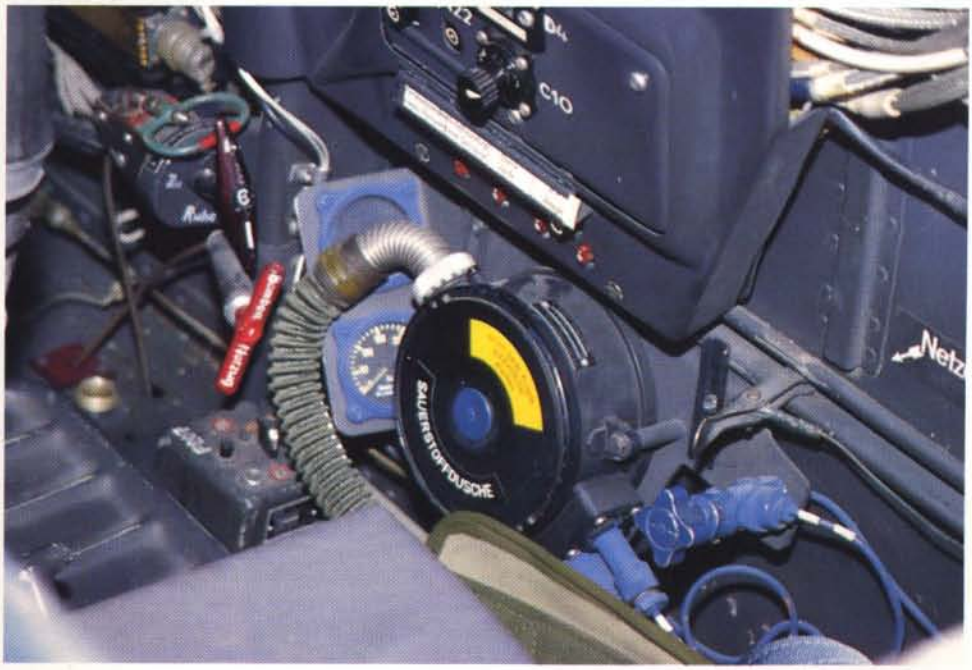


Port side view from the top is the tailwheel lock mechanism, fresh air inlet, engine throttle (yellow knob) and flap and trim wheels.

Instrument panel (from top left to right): modern instrument in place of ammunition counter; modern compass in place of Revi 16B gunsight; aviation clock; (middle) compass; artificial horizon; tachometer; (bottom) magneto switch, circuit breaker, airspeed indicator, altimeter, super charger pressure gauge, propeller pitch indicator, fuel and oil temperature indicator, fuel gauge, fuel & oil pressure gauge.



Closeup of the control column shows the trigger for the coaxial MG 151/20 on top of the grip. Cockpits were painted in RLM 66 Schwarzgrau.

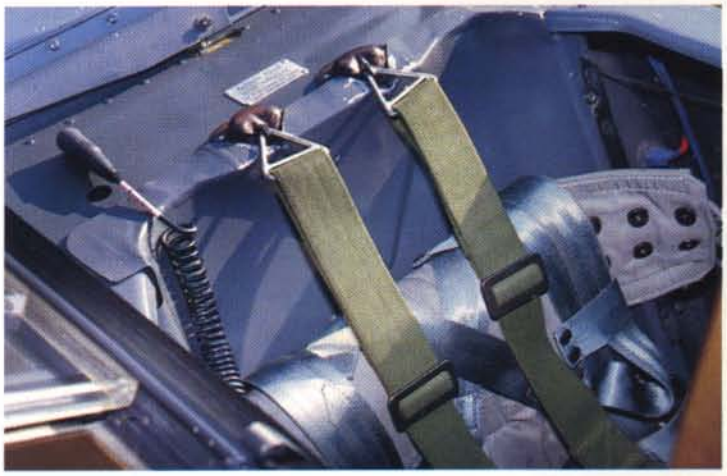


Closeup of the oxygen system: hose, (top gauge) oxygen control indicator, (bottom gauge) oxygen pressure indicator. Blue knob is the oxygen cut-off valve. Note blue tubing indicates oxygen lines. The small lever above the cut-off valve is the "Netzeinschaltung", translated "Main power switch". Red handle is the radiator flap lever; below is the radiator cut-out handle. Below the red handles on the floor is the frequency selector for the FuG 16 radio. Above the oxygen system is the control panel for the FuG 25 IFF.

Upper left : Closeup of starboard rudder pedal. Note the leather strap. The pedal assembly is on a rack that swivels with the rudder. The brass cylinder behind it is the hydraulic switch to brake the tires respectively left and right when the pilot pushes forward with his toes.

Bf-109's starting with the "F" series had a more rudimentary seat.

Above and below we have a rare view of the personal storage compartment.



Closeup of the shoulder harness attachments. The coiled cord is the radio attachment.

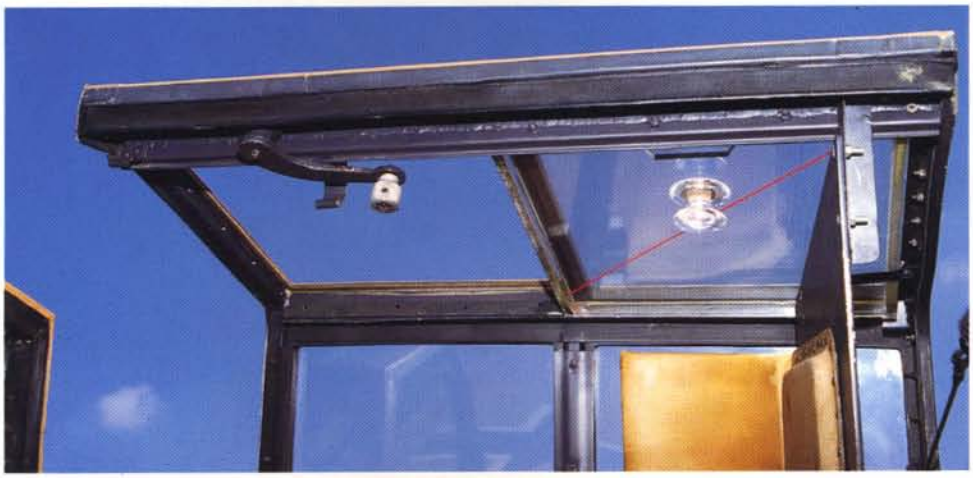
Armored headrest with cushion.

Below : Visible here is the cushioned armored headrest. The spring is the shock-absorbing canopy stop. The clear knob is used to slide the glass open. The red stripe painted on the glass is a dive indicator.

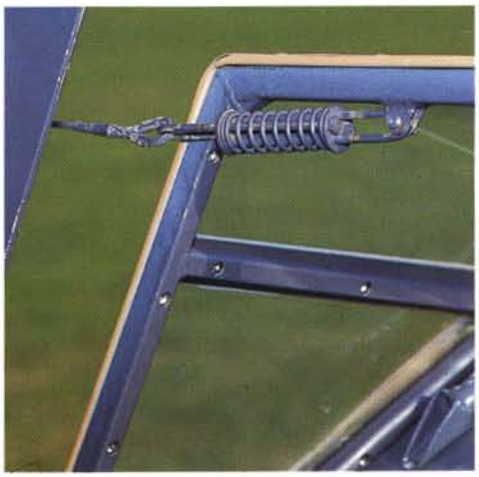
Closeup of the antenna mount, spring-loaded catch and leather strap to access the storage compartment.

Canopy's spring-stop - pulling the leather strap accesses the personal storage bin.

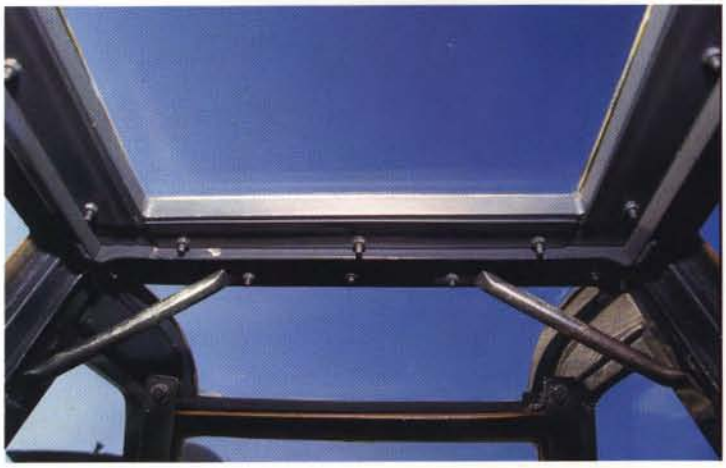
Leather cushion for armored headrest.



Canopy release lever, armored headrest attachment and sliding glass panes.



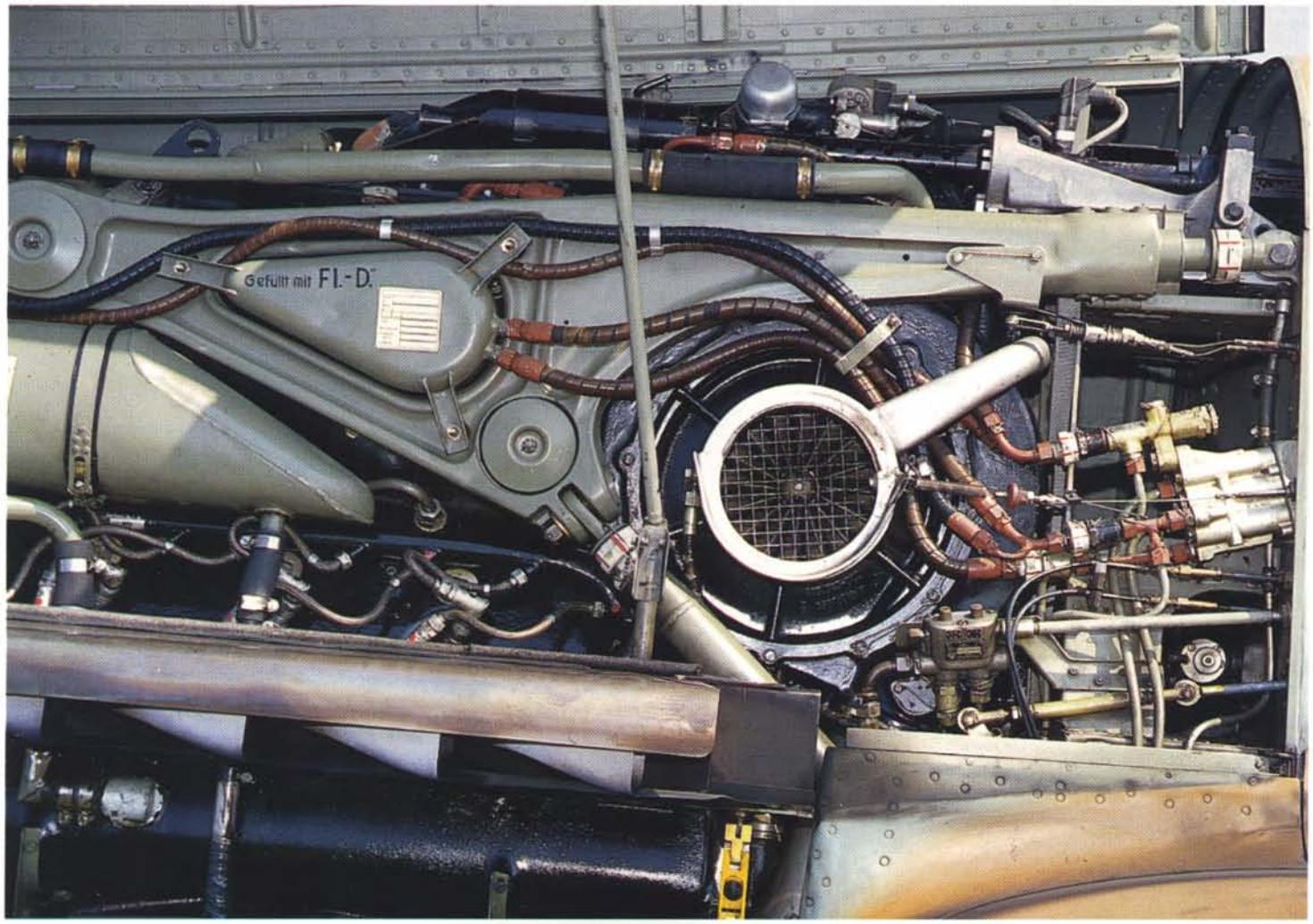
Closeup of canopy retainer spring-lock.



Closeup of the handholds.

Closeup of canopy release mechanism.

Engine

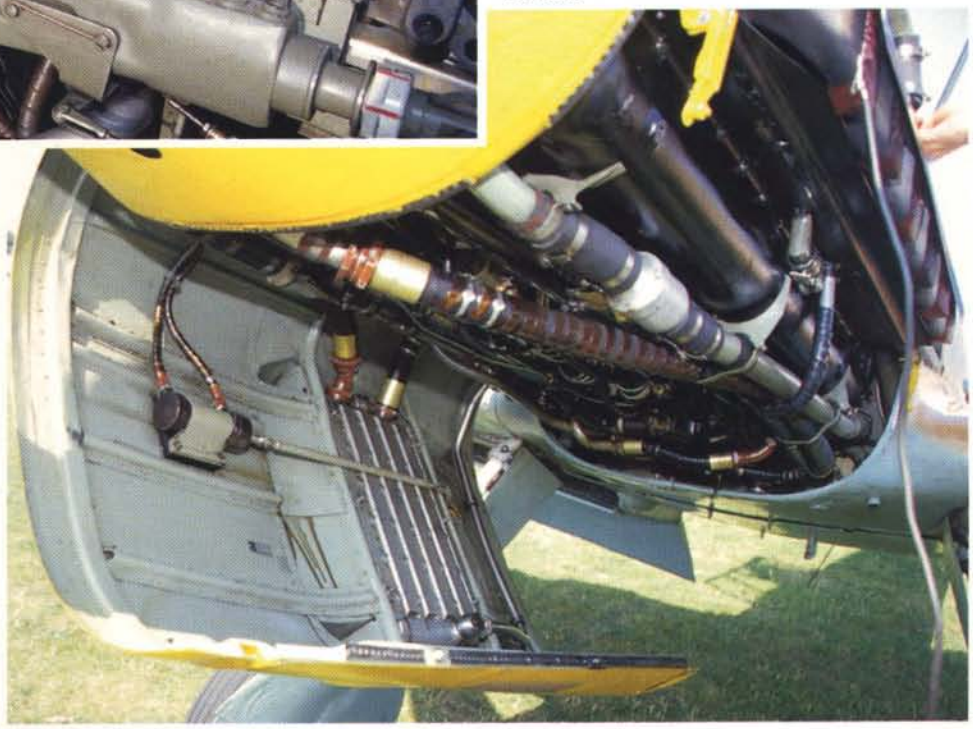


Intake for the super charger is prominently visible. The hydraulic tank is set in the opening of the engine bearer. The larger angled tank is the coolant reservoir (both sides). The mass of hoses are connected to the hydraulic distributor and attached to the firewall. Note the variety of colors on the hoses and pipes. The semigloss valve covers are visible at the bottom.

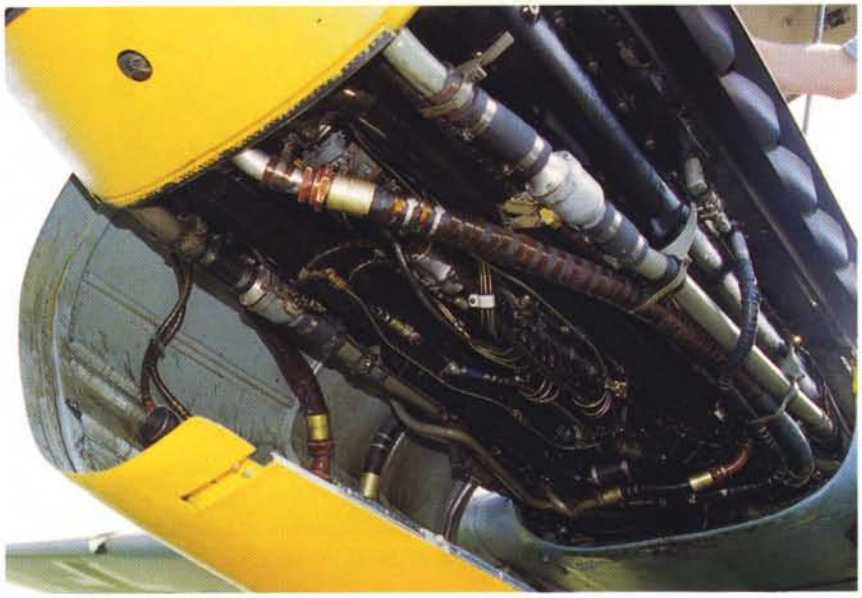
An excellent view of the inside of the cowling. The thick track located near the edge of the cowling panel helps distribute fresh air brought in from the external scoops to cool the engine.

MG17 clearly visible with its feed chutes on both sides. The heavy pipe brings in air to the air valve. The circular aluminum cap covers the magneto for ignition and also controls MG17 firing order through the propeller arc. The brown wrapped hydraulic lines are visible. Note the piano hinge connecting the cowl panels.

Excellent view of the Fo 870 oil cooler. The hydraulic cylinder controls the shutter. Cooling hoses are visible on the valve covers.

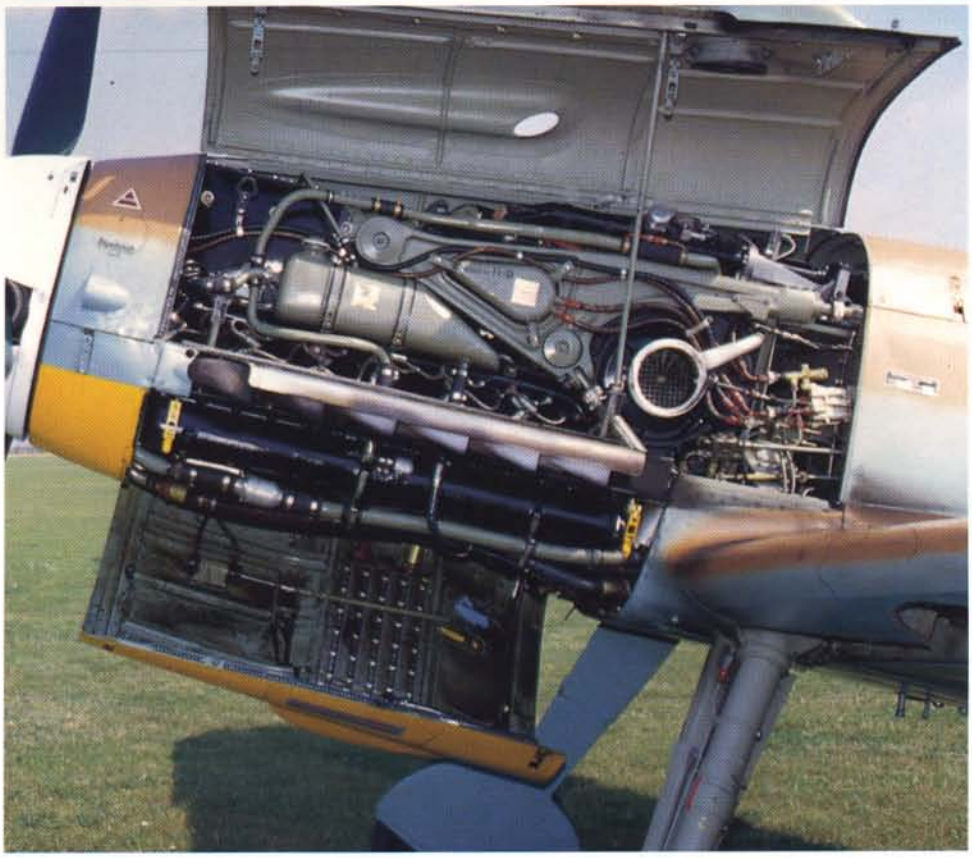


The cooling hoses, fuel injection lines and intake plenum are visible on the underside. This will aid the modeler.



The powerful Daimler-Benz DB605A engine nestled in its cramped, space-efficient cowling.

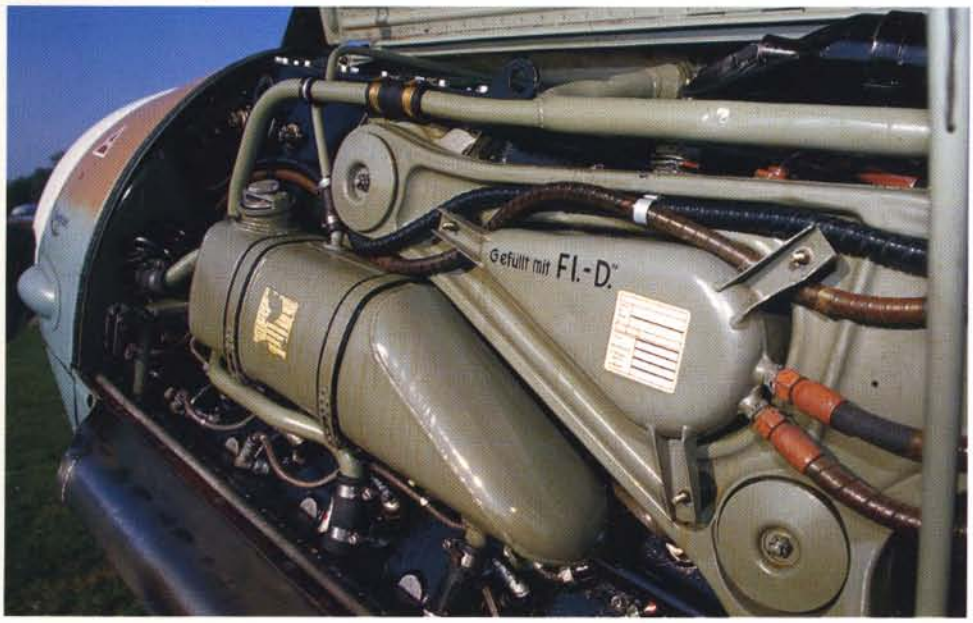
The black semigloss valve covers are visible.



A handy resource for modelers on the location of hoses and wires. Note the oil-covered lower cowl panel.

Locations of coolant hoses. On the lower panel are the hydraulic cylinder and actuating arm for the oil cooler shutter.

Inside view of port side cowl panel.



Closeup of the hydraulic reservoir and coolant reservoir. Barely visible at the extreme front inside is the 36-liter oil tank. At the bottom, the ignition wires are visible.

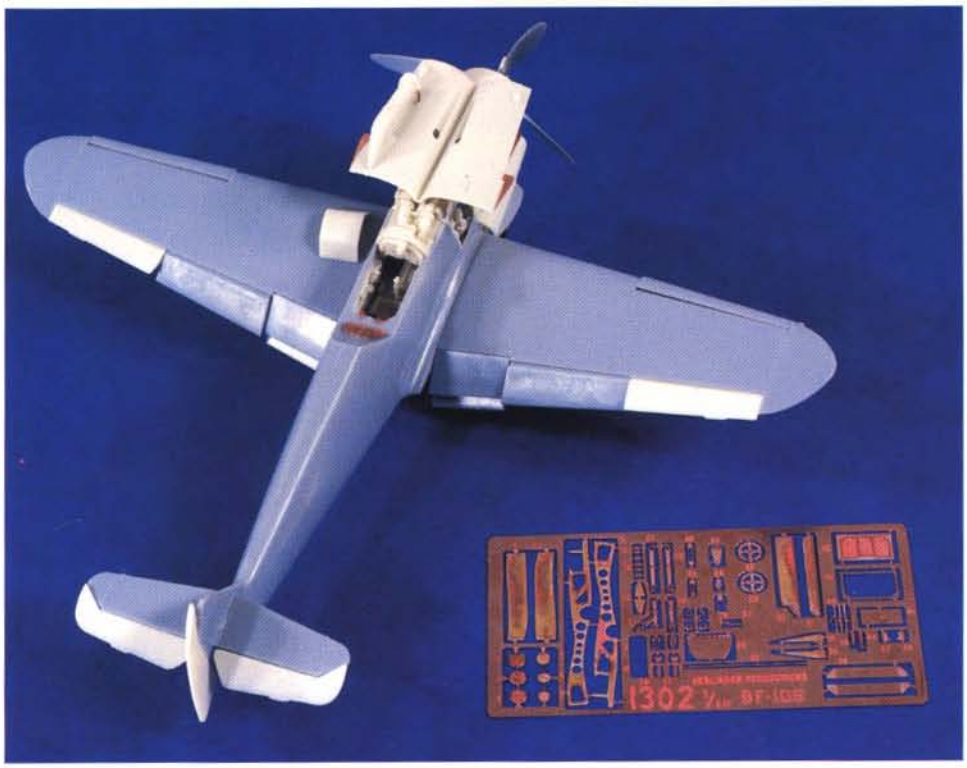
View of the MG17's 7.92mm with 500 rounds each.

Maintenance was easily performed and accessed.

Closeup of valve covers and coolant line crossovers.

Pilot and crewchief do a preflight check-up.

VP 1302
Me-109G-2 Super Update in 1/48th Scale

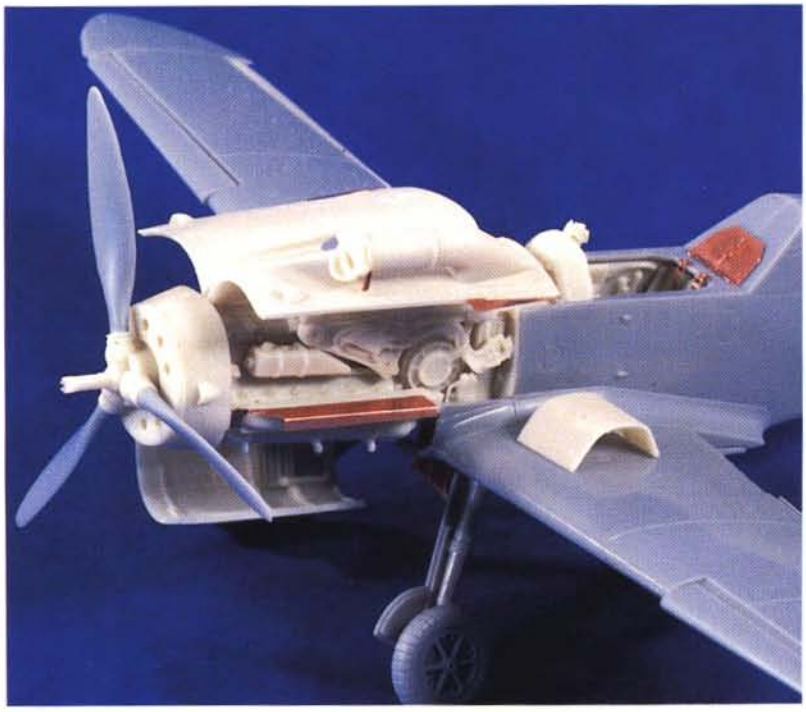


This all-new detail set was based on the the comprehensive illustrations in this book. The update is designed for the 1/48th scale model from Hasagawa.

It is also an excellent color reference for the engine compartment and cockpit and Luftwaffe personnel. In the cockpit the coaxial MG-151 cover can be removed to display the bridge of the 20mm machine canon. Control surfaces can be positioned in any manner.

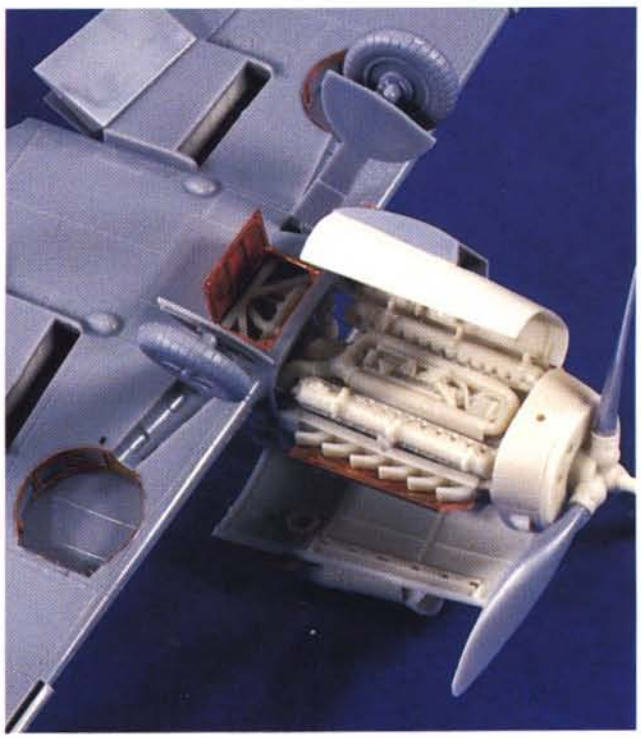
By the time you are reading this book our next release, VP 1321 Luftwaffe Underwing Stores, will be available. This will include 5 different drop tanks, bombs, and rockets as well as MG151 machinecannon gun pods with the option of them being open or closed.

All these combined will give you an accurate representation of the Messerschmitt Bf-109.



In the picture above we see a close-up view of the engine. Cowl-panels can be positioned in any fashion. Options included in this super update set are a tropical filter with open or closed air intakes and photo-etched canvas covers for the wheel wells. We are providing complete photo-etched seatbelts and seperate buckles for those of you who like to do it the hard way.

Below we have a picture of the detailed underside. Details on the underside weren't overlooked. Visible in the open panel behind the engine compartment are the undercarriage attachment points that were made out of resin.



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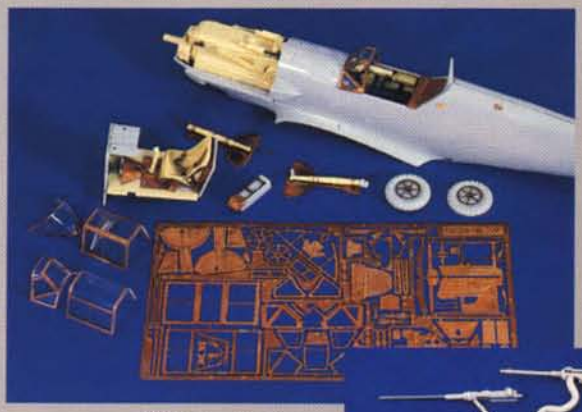
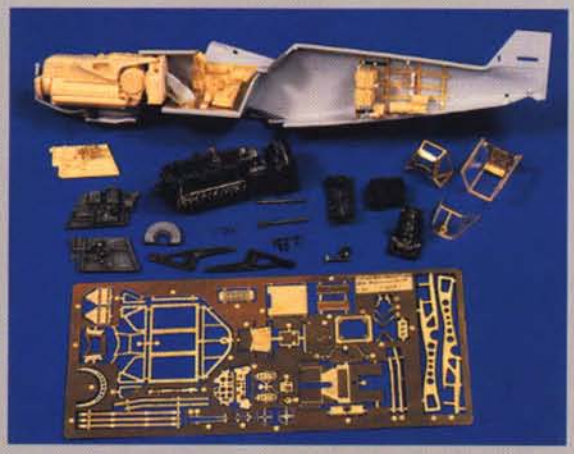
Use our new Lock-On as a reference for any of these items. When accuracy counts - *you can count on us!*



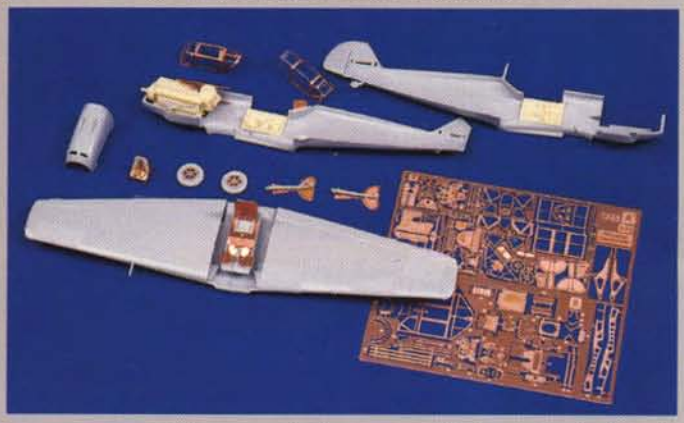
N°0741
Messerschmitt-Bf109E Update Set
(for Hasegawa) 1:32



N°0384 Messerschmitt BF-109 Super Detail Set 1:48

N°0380 Luftwaffe Airfield Carts 1:48

N°0775 Messerschmitt Me Bf-109 Update Set (for Hasegawa) 1:72



N°1261 Luftwaffe Aircraft Guns 1:48

N°1132 Luftwaffe Maintenance Corner 1:48

N°1119 Luftwaffe 50kg Bombs/Crates 1:48

N°0467 Luftwaffe Pilot and Crew WWII 1:48

N°1123 Luftwaffe 250kg Bombs & Crates 1:48

N°0819 German WWII Fighter Pilot

N°0698 Adolf Galland
German Fighter Pilot Ace WWII
200mm

N°0780 WWII Fighter Pilot & Crewchief 1:35

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