PROFILE

Messerschmitt Bf 109G

Editors

Nico Braas

Srecko Bradic

Interesting to see naturall metal Bf 109G during test (Richard Atkins Collection via Mark Nankivil)

US evaluation of the Bf 109G

Messerschmitt Bf 109 G-6/U4 , flown by Capitano Giovanni Spigaglia, Nucleo Commando, 2 Gruppo CT, Villafranca, November 1944.

Messerschmitt Bf 109 G-14, from III/JG 76, 1944

Bf109G 464549

Messerschmitt Bf 109 G-1, flown by Walter Nowotny, East front. Airplane wears non standard top coat in single green color

Introduction

When the Messerschmitt design team began work in 1934 on a new fighter for the Luftwaffe it resulted in an aircraft that gained the same fame as the British Spitfire. It was probably Robert Lusser, the "father" of the M-37, alias Bf 108 Taifun who was responsible for most of the basic design work, rather than Walter Rethel as suggested in some sources.

The new fighter type became known as the Bf 109 (where Bf abbreviated the original name Bayerische Flugzeugwerke or Bavarian Aircraft Factory) and its production from 1937 continued until the end of the war, although the last Bf 109 variants had little in common with the first versions. The two versions in production until the end of the war were the Bf 109G and the much improved final version the Bf 109K. It was the Bf 109G that was built in greater numbers than any other 109 variants and the type that was encoun-

Messerschmitt Bf 109 G-6/MW, unknown unit

Messerschmitt Bf 109 G-0, code letters VJ+WA, fresh delivered

Messerschmitt Bf 109 G-1/R2 , 6/JG 54, wear one of the non standard camouflage pattern

Messerschmitt Bf 109 G-1, delivery markings

Bf 109G captured at Malta. Note camouflage striking pattern under the wing. (Sqn Ldr. Jack Cornelius R.A.F. Retired)

Bf 109G-6 on East Front

Romanian crew in relaxed atmosphere

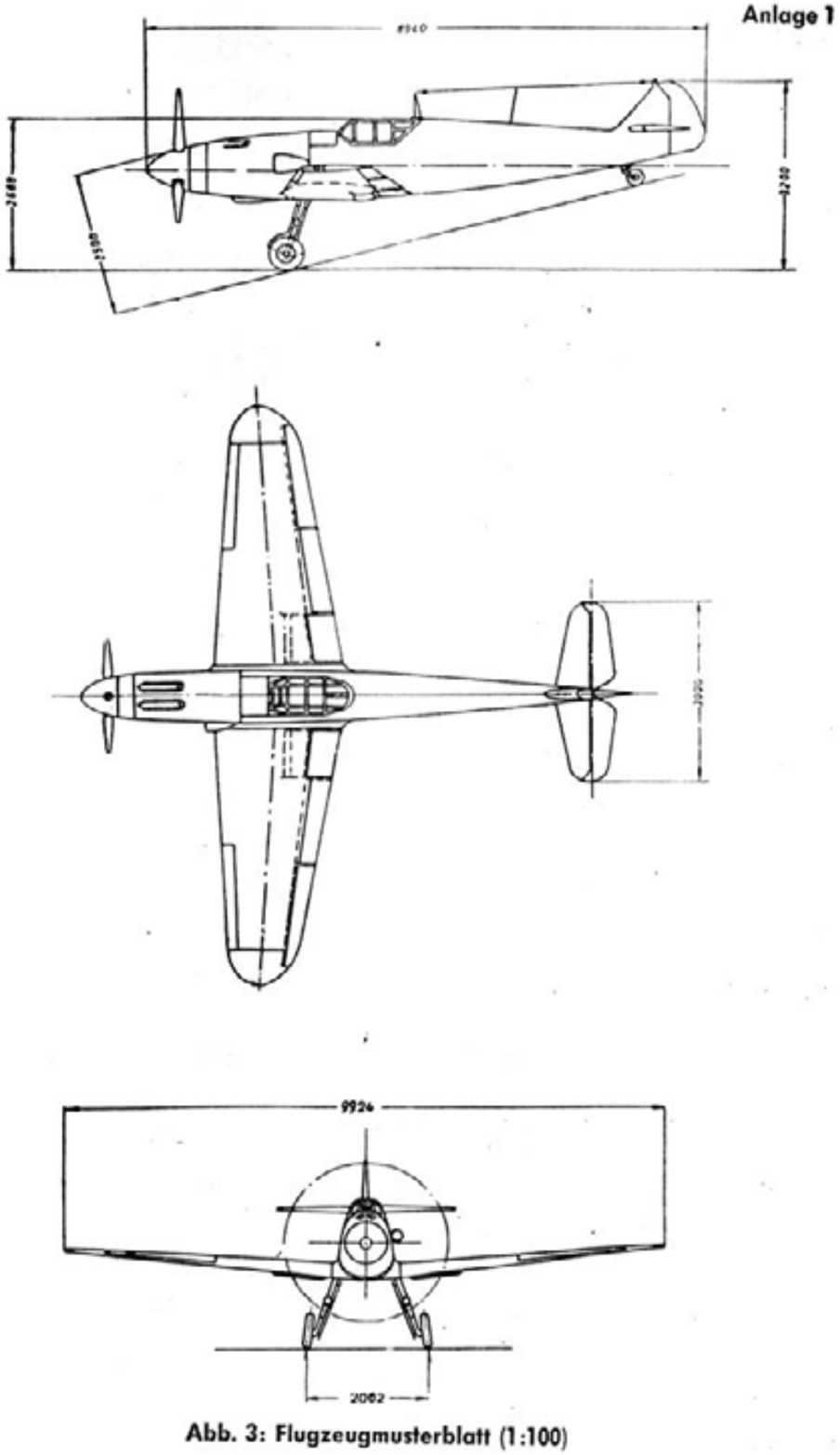


Abb. 3: Flugzeugmusterblatt (1:100)

Bf 109G with attached SC 250 bomb ready for the mission

tered -and feared- by the American day bomber groups.

Quotes from German aces

Johannes Steinhoff, Sicily, Commander JG 77 (July 1943):

The Malta Spitfires are back again... They're fitted with a high altitude supercharger and at anything over twenty-five thousand feet they just play cat and mouse with us.

At 28,000 feet the Spitfire could turn in an astonishingly narrow radius. We on the other hand, in the thin air of those altitudes had to carry out every manoeuvre with caution and at full power so as not to lose control.

Johannes Steinhoff, Messerschmitts Over Sicily, (Stackpole Books, 2004), pp. 97-98, 111.

Johannes Steinhoff as member of the European Commission visiting Fokker Aircraft at Schiphol to test the suitability of the Fokker S.14 Machtrainer:

The latest Messerschmitt fighters combined the worst possible flight characteristics.....

Unpublished report Fokker Aircraft Works.

Günther Rall commented on the Spitfire, having had the opportunity to fly various captured allied aircraft, as well as the Bf 109G:

The Spitfire, too (referring to the P-38 with power ailerons), was a very manoeuvrable aircraft, very good in the cockpit."

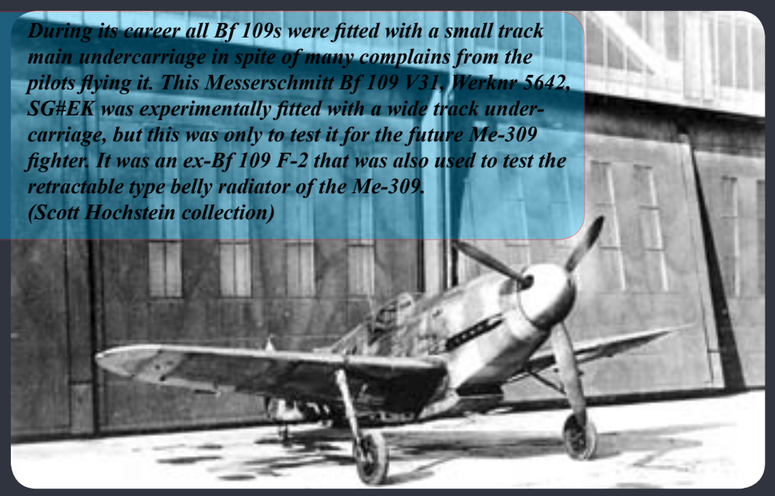
...Nicknamed Gustav, the BF 109G was well armed but not as light as the earlier E and F versions. Its more powerful engine meant higher power settings whose initial climb rate sent it soaring to 18,700 ft. in six minutes but at low speed the plane was difficult to handle. ...Most of us considered the 109G over-developed. Poor landing characteristics added to its woes.

Birth of a champion

Willy Messerschmitt was the managing director of the Bayerische Flugzeugwerke A.G.. The company, which was based at Augsburg, built various aircraft types mostly of single-engine design.

In the economic crisis of the thirties, also Messerschmitt's company ran into financial difficulties which in 1931 resulted in bankruptcy. Messerschmitt still owned Messerschmitt Flugzeugbau as a dormant company holding all his technical patents. New working capital was borrowed and on 27 April the Regional Court of Augsburg issued a verdict that gave Messerschmitt the opportunity to re-open his factory gates with 85 employees. He received an order from Romania to build a small series of light passenger aircraft but the German Ministry of Aviation

Messerschmitt Bf 109 G-1/R1, Werknr. 14008, BD+GC (also known as FiSk 199) was fitted with an auxiliary tail wheel to give more ground clearance during the start with a large size bomb under the fuselage. After the start it came down on a small parachute for re-use. As far as known it was not adopted for operational use. It was fitted with a pressurised cockpit.



During its career all Bf 109s were fitted with a small track main undercarriage in spite of many complains from the pilots flying it. This Messerschmitt Bf 109 V31, Werknr 5642, SG#EK was experimentally fitted with a wide track undercarriage, but this was only to test it for the future Me-309 fighter. It was an ex-Bf 109 F-2 that was also used to test the retractable type belly radiator of the Me-309. (Scott Hochstein collection)

RLM (Reichsluftfahrtministerium) refused permission to build them. The RLM was of opinion that the new development and production capacity had to be strictly used for Germany.

In compensation Willy Messerschmitt received a contract for the development and construction of a single engine aircraft to compete in a fighter contest between the various aircraft manufacturers. This opportunity would have far-reaching consequences! Although Messerschmitt had no practical experiences in designing fighters, he had sound basis with the all-metal Messerschmitt Bf 108 4-seat light plane. This was of modern light-alloy monocoque construction with a fully retractable main undercarriage. From the Bf 108 Willy Messerschmitt and Dipl. Ing. Robert Lusser designed a small and sleek single engine fighter, intended to be fitted with a more powerful engine -the Junkers Jumo 210A of 610 hp.

However, as this engine was not available Messerschmitt selected the Rolls Royce Kestrel liquid cooled in-line engine as preliminary power source . The new design received the RLM type designation No.109, preceded by the initials 'Bf' for the Messerschmitt works trade name at that time: 'Bayerische Flugzeugwerke'. Later the initials were changed into 'Me' but this was only for the first time used on the Me-163V4 Komet rocket fighter.

During the fighter competition, held in October 1935 at Travemünde, Messerschmitt entered his Bf 109 against the Heinkel He 112, the Focke Wulf FW 159 and the Arado Ar 80. The FW 159 parasol plane and the Ar-80 with a fixed landing gear were clearly inferior, but Heinkel's He 112 was in all aspects more or less equivalent to the

Messerschmitt Bf 109 G-2, Werknr 10639, PG#QJ was captured by the R.A.F. where it received the serial RN228.

new Messerschmitt fighter. Eventually a development contract for ten prototypes was placed for both Bf 109 and He 112, but it was the Bf 109 that was finally selected for mass production beginning in the spring of 1937.

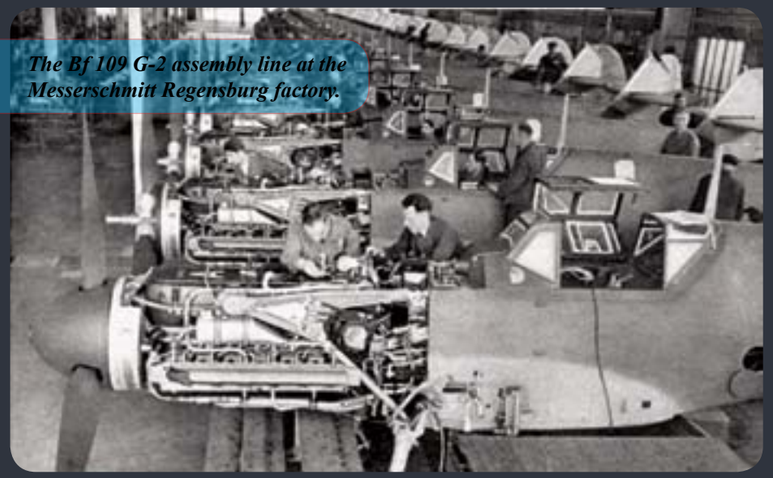
From Bf 109V1 to Bf 109G - Honing the breed:

Lusser's design for the new single-seat fighter revealed an aircraft with a sleek fuselage combined with tapered wings fitted with automatic leading edge slats. The main wheels were attached to the fuselage and retracted outwards into the wings. The advantage of this construction was that even without its wings the fuselage could rest on its wheels. The horizontal tail was supported, just like the preceding Me-108, with single struts and the tail wheel was not retractable. In the first prototypes the engine drove a two-bladed Härzel propeller. On 28 May 1935 the Rolls Royce Kestrel powered prototype, the Bf 109V1, made its first flight at Augsburg with Flugkapitän (flight captain) Hans 'Bubi'

Rare color picture of Messerschmitt Bf 109 G-2, WerkNr. 13993 of the Finnish air force with registration number MT-229

Knoetzsch at the controls. It carried the civil registration D-IABI and it was this machine that was used in the fighter contest at Travemünde in October 1935!

In January 1936 it was followed by the 610 hp Junkers Jumo 210A powered Bf 109V2 registered D-IUDE. which made its first flight on 12 December 1935. The Bf 109V1 was unarmed, but D-IUDE had provision for two 7.9 mm synchronised machine guns in the nose above the engine firing through the propeller. A third prototype Bf 109V3, registered D-IOQY, (first flight on 8 April 1936), very similar to the Bf 109V2, joined the test programme in June 1936. This prototype was in fact the first Bf 109B-0. More prototypes not only joined the testing program, but also participated in the prestigious air



The Bf 109 G-2 assembly line at the Messerschmitt Regensburg factory.

Messerschmitt Bf 109 G-2 CC#PG during an engine test run with engine covers removed. When this photo was taken, it was a brand new machine.

races held in the summer of 1937 at Zürich. The Bf 109V10 and V13 D-ISLY and D-IPKY entered this competition as 'sport planes' with up-rated engines and convincingly won the speed contests! However, by this time the Bf 109V4 D-IALY was already fully armed with three MG 17 machine guns. The RLM had placed a contract for the delivery of the Bf 109 a year earlier. According to many early sources the first planned production model Bf 109A was never built but in fact a small series of 24 Bf 109A's was manufactured during January-February 1937 at the Messerschmitt Regensburg plant. They were allocated Werknrs. (works numbers) 803-810; 878-884 and 1001-1009. Werknr. 884 became the Bf 109V10. The Bf 109B-0 was delivered in small numbers to the Luftwaffe in the spring of 1937. It was the Luftwaffe's first modern single-seat fighter. The B-0 was further developed and the Bf 109B-2 with a 670 hp Junkers Jumo 210G and a two-blade variable pitch propeller was the first to see action when the German Condor Legion joined Nationalists forces in the Spanish Civil War. It was superior over all other air-

A Croatian air force Messerschmitt Bf 109 G-2 showing the Croatian national symbol under the cockpit section. It flew in standard Luftwaffe markings.
(Josip Novak collection)

Messerschmitt Bf 109 G-2 'Black 1' flown by the Croatian pilot Franjo Dzal. He was credited with a total number of sixteen aircraft shot down. After the war he was court-martialled and sentenced to death. He was executed in October 1945.
(Josip Novak collection)

plane types encountered in combat and a future German ace like Werner Mölders scored in Spain his first kills by shooting down a Republican Polikarpov I-15 Chato. Remarkably this aerial victory was claimed as a 'Curtiss fighter' in the German biography of Mölders (Fritz von Forell, Mölders und seine Männer, Steirische Verlagsanstalt, Graz-Austria; 1941).

According to recently discovered Messerschmitttt internal documents it appears that there never was a Bf 109 B-2! All machines so identified were in fact Bf 109B-1s retrofitted with a VDM propeller.
The Condor Legion gained valuable combat experience from its military expedition in Spain that was put to good use later when German forces began their full

Messerschmitt Bf 109 G-2 'Black 3' was flown by the Croatian pilot Cvitan Galic. It has 11 kill-marks on its rudder! He was killed on 6 April 1944 during an Allied attack by Spitfires on Zaluzadi airbase. At that time he had a final score of 38 kills.
(Josip Novak collection)

Messerschmitt Bf 109 G-2/R2-Trop. 'Irmgard' captured in North Africa but now with the markings of its new owners! This machine was later tested at Wright Field. (Jean-Claude Mermet collection)

scale attacks on Poland, the Low Countries and France. By that time the Bf 109B had already been succeeded by the much improved Bf 109E. This type had been preceded by the lesser known Bf 109C and D built in smaller numbers. The Bf 109E, armed with two machine guns and one 20 mm cannon and fitted with a 1100 hp Daimler Benz DB601 engine with fuel injection, was the variant used during the Battle of Britain. Although the Supermarine Spitfire was a more manoeuvrable aircraft the Bf 109E was found to be a very dangerous opponent for the famous British fighter. After the Battle, the Bf 109E, known as 'Emil' in the Luftwaffe, continued to see service intercepting raiding British warplanes and in the Southern-European and North African war theatres.

However, the Emil was quickly succeeded by an improved variant; the Bf 109F. The F-version featured an improved aerodynamic shape of the front fuselage, a reshaped wing with rounded wingtips and a more powerful Daimler Benz DB601 engine and no longer had the characteristic struts for the horizontal tail. In general the 'F' - 'Friedrich'- was regarded as having the best all-round performance of the 109 variants and it soon replaced the Emil on all fronts. It was this version that made Hans Joachim Marseille famous and he was one of the several German aces who scored kills while flying this type.

The Gustav

The Bf 109G 'Gustav' was the most important variant of the Bf 109. It was also built in the largest numbers, in particular during the last years of the war. The Gustav was fitted with the new Daimler Benz DB605 engine giving 1475 hp. With GM-1 (nitrous oxide) injection equipment it could be boosted for a short time to over 2000 hp. In addition water/methanol injection (MW 50) was used to briefly boost performances. The GM-1 and MW 50 systems boosted the engine differently : GM-1 above the rated altitude and the MW 50 below the rated altitude.

Externally the 'Gustav' was similar to the preceding F-model. The most visible differences were the lack of the small triangular cockpit window and the addition of small air openings on each side of the nose. The first batch of three Bf

Messerschmitt Bf 109 G-1/Trop, 3/ JG 53, Sicily 1942.

Technical details

Specifications Bf 109 G-6 :
Power plant: 1 × Daimler-Benz DB 605A-1 liquid-cooled inverted V12, 1475 hp maximum output at start; 1310 hp during climb and battle and 1075 hp max. continue power driving a VDM 9-12087 three-bladed light-alloy propeller with a diameter of 3 m

Dimensions:
-Length: 9.02 m (8.94 m has always been used in error; even in pilot manuals!)
-Wingspan: 9.924 m
-Height: 2.50 m
-Wing area: 16.05 m²

Weights:
-Empty weight: 2,247 kg
-Loaded weight: 3,148 kg
-Max. takeoff weight: 3,400 kg

Performances

-Maximum speed: 640 km/h at 6,300 m (VNE 750 km/h)
-Cruise speed: 590 km/h at 6,000 m
-Range: 850 km; 1,000 km with droptank
-Service ceiling: 12,000 m

Armament

2 × 13 mm MG 131 machine guns with 300 rounds per gun
1 × 20 mm MG 151 cannon with 150 rounds
G-6/U4 variant:
1 × 30 mm (1.18 in) MK 108 cannon with 65 rounds and 2 × 20 mm MG 151/20 underwing cannon pods with 135 rpg (optional kit - Rüstsatz VI)
Rockets: 2 × 21 cm (8 in) Wfr. BR 21 rockets
Bombs: 1 × 250 kg bomb or 4 × 50 kg bombs or 1 × 300 litres drop tank with optional racks

Avionics: FuG 16Z or 16ZY radio

Erla-built Messerschmitt Bf 109 G-4/R6, WNr 14997, KJ+GU of 8.-JG52 at the Kuban area near the Black Sea. On 28.05.43 Herbert Meissler was forced to land by Russian pilots. Meissler tried to set his machine on fire... in reallity, this "story" has been created by the Soviets for a propaganda film (Newsreels)... The smoke is the result of smoke producing devices...
(Denis Estafyev collection)

Bf 109 G-2 of the Roumanian air force. Note Mickey Mouse figure on the aircraft in front!
(Milan Janak collection)

A captured Bf 109 G-2/R6 in Soviet air force markings.
(Genady Petrov collection)

109G-0 machines with Werknr. 14001 to 14003 was delivered over 1942 although still fitted with a DB-601 engine since the DB605 was not yet available. Soon more versions followed, designated as Bf 109G-1 (the first one being Werknr. 14004) to G-16. By early 1943 most Bf 109F's had been replaced by the G-variant.

The following versions of the G-variant were manufactured:
Bf 109G-0 pre-series still fitted with DB601E engine armed with two MG 17 machine guns and one MG151/20 cannon. They were additionally strengthened and had provision for a pressurized cockpit.

Bf 109G-1 fitted with DB605A-1 engine of 1475 hp with GM-1 injector and a pressurized cockpit.

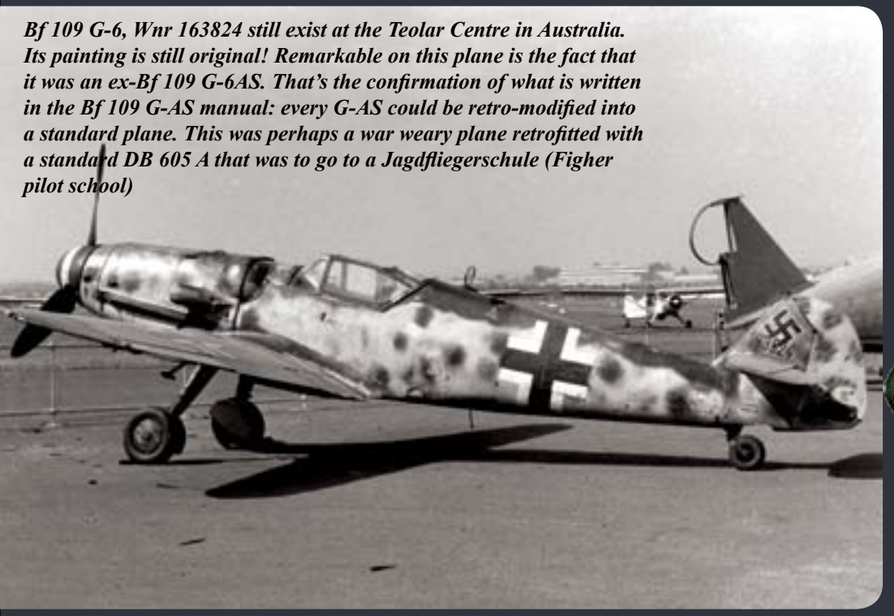
Bf 109G-1/Trop tropicalised version fitted with a dust filter.

Bf 109 G-2/U3 with markings N5#EK 'Green 5' was quite unceremonially left behind in a desolate condition. U3 meant it was fitted with reconnaissance camera's. It was a machine of the unknown NAGr Bromberg (Nahaufklärungsgruppe or short-range reconnaissance group)
(Jim Crow collection)

Bf 109G-2 similar to Bf 109G-1 but without pressurised cockpit. Actually, the version without pressurized cockpit was the "light version" Bf 109G-1/R2. It also had armour protection for the fuel tank removed for better performances.

Bf 109G-3 similar to Bf 109G-1 but fitted with FuG 16Z board radio instead of standard FuG 7A. Main differences with the Bf 109G-1/2 were the use of thicker main wheels for the undercarriage (669x160 mm wheels against 669x150 mm), hence the appearance too of small bumps over the wings, a bigger tailwheel (350x150 mm against 290x110 mm) and the attachment point of the vertical antenna thread relocated to the seventh section of the fuselage.

Bf 109 G-4Trop WNr 13030 with markings NH#RT in Italy. This plane was camouflaged with German paints RLM 79 (Sand) and RLM 78 (Sky-blue).
(Jean-Claude Mermet collection)

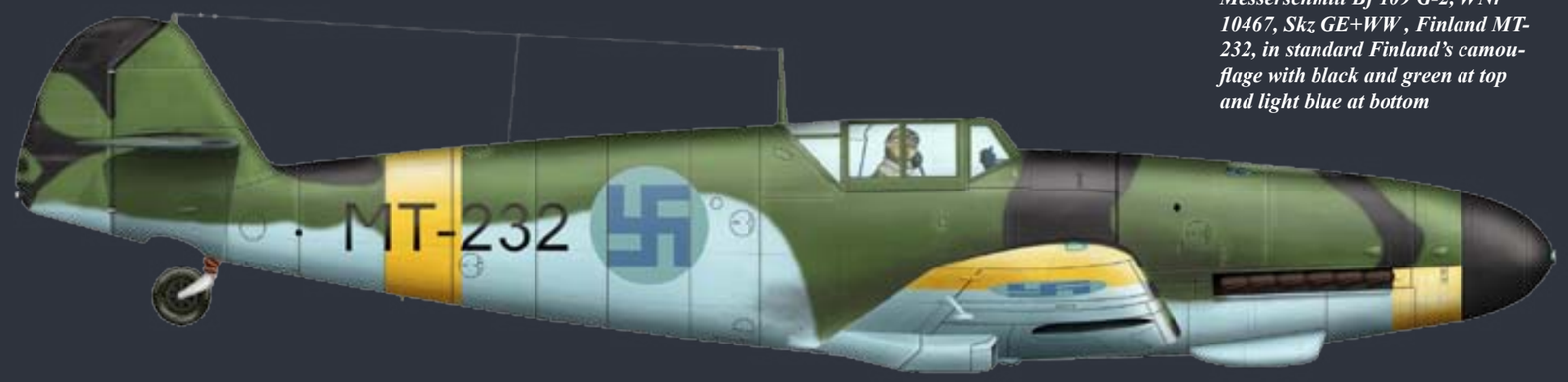


Bf 109 G-6, Wnr 163824 still exist at the Teolar Centre in Australia. Its painting is still original! Remarkable on this plane is the fact that it was an ex-Bf 109 G-6AS. That's the confirmation of what is written in the Bf 109 G-AS manual: every G-AS could be retro-modified into a standard plane. This was perhaps a war weary plane retrofitted with a standard DB 605 A that was to go to a Jagdfliegerschule (Figher pilot school)

Messerschmitt Bf 109 G-2/U3, Erganzungs-NAGr. Bromberg, January 1945

Messerschmitt Bf 109 G-2, 7/JG 54, this white 12 has improvized camouflage

Messerschmitt Bf 109 G-2, Finland MT-222, WNr 13528, Skz DL+IC , flown by Adjutant I. Juutilainen, 1/ LeLv 34, Utti 1943. Interesting pattern with sole RLM 74 at top



Messerschmitt Bf 109 G-2, WNr 10467, Skz GE+WW , Finland MT-232, in standard Finland's camouflage with black and green at top and light blue at bottom

Bf 109G-4 similar to G-3 but without pressurised cockpit.

Bf 109G-5 powered by a DB605 engine with MW-50 injection (methanol/water 50/50) to boost performance for a short period to1800 hp. This version introduced the cowling-mounted MG 131 with bulges for the ammunition chutes, the cabin-compressor was located on the right side of the engine, against left side on the previous versions.

The Bf 109G-5/U2 had the GM-1, Bf 109/R2 was a reconnaissance version and Bf 109 G-5/R6 had two underwing MG 151/20 guns. Sixty-seven Bf 109G-5s received a DB 605 AS engine with GM-1 and were called Bf 109G-5/U2/AS. The G-5 could also be fitted with two underwing Wgr21 21 cm mor-

Messerschmitt Bf 109 G-2/R4, 4/JG 53, Sicily, 1942

Messerschmitt Bf 109 G-2/R4/Trop, I/JG 27. Airplane shows traces of painted over and all colors are desert colors.

Messerschmitt Bf 109 G-6, WNr 167271 MT-507 on display at the Finnish air force museum at Tampere.

A Bf 109 G-6 at Borovo, Yugoslavia en route to Bulgaria. (Josip Novak collection)

A Bf 109 G-6 with -most likely- the technical maintenance crew sitting on its wing.

tar launchers.

Bf 109G-6 the most important Gustav version built in the largest numbers. It could be fitted with a DB605AM, AS, or ASM engine. It was armed with two MG 131 machine guns. The Bf 109G-/U4 had a single MK 108 30 mm cannon firing through the propeller hub and two MG 151/20 cannons fitted under the wings as Bf 109G-6/R6. This combination was regarded as the most suitable for daylight bomber interception althoughit lacked the performances to meet allied escort fighters on even terms. As for the Bf 109G-5, the G-6 could be fitted with WGr 21 mortar launchers under the wings.

Bf 109G-7 a proposed improved Bf 109G-6 that was never built. Most likely it was later developed further into the Bf 109 G-14 without pressurised cockpit.

Bf 109G-8 photo reconnaissance version. It was armed with two MG 131 machine guns and the standard MG 151/20 mm cannon firing through the propeller hub. For reconnaissance missions it could be fitted with two Rb 12.5/7 or Rb 32/7 camera's as Bf 109 G-/U3.

Bf 109G-9 not built.

Bf 109G-10 the fastest of all Bf 109G versions. It could fly at 7600 m with a speed of 690 km/h powered by a DB605D engine with MW-50 injector. Standard armament was a single MG 151/20 mm cannon and two MG 131 machine

Messerschmitt Bf 109 G-6, WNr. 15909

Double Chevron white 5 was personal airplane flown by Hauptmann Gerhard Barkhorn, Jagdgeschwader JG 52. This WNr 15909 was an Erla-built Bf 109 G-6.

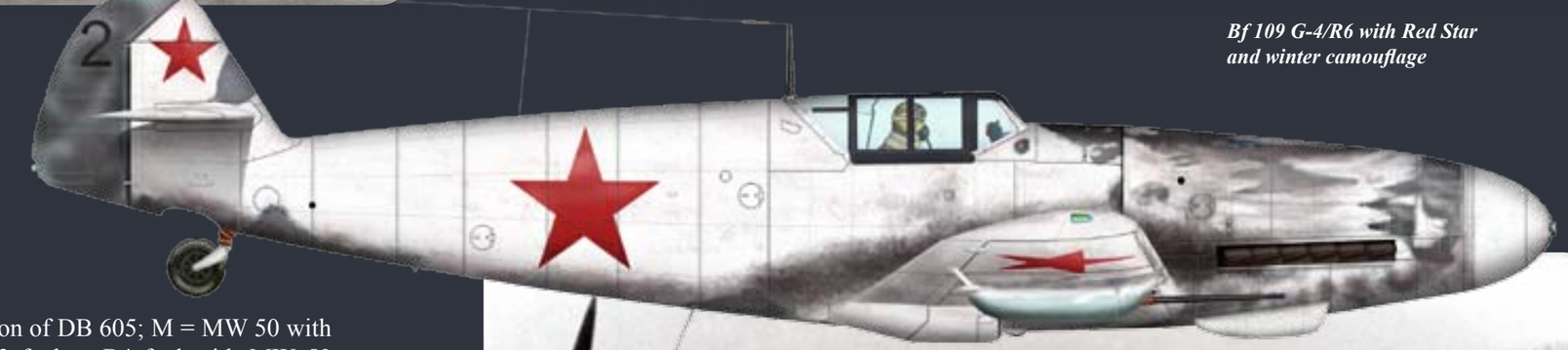
Gerhard "Gerd" Barkhorn

Lieutenant-General Gerhard "Gerd" Barkhorn (20 March 1919 - 8 January 1983) was one of most successful fighter ace of all time. Barkhorn joined the Luftwaffe in 1937 and completed his training in 1939. Barkhorn flew his first combat missions in May 1940, during the Battle of France. His first victory came in July 1941. In March 1944 he was awarded the third highest decoration in the Wehrmacht for 250 aerial victories. Barkhorn flew 1,104 combat sorties and was credited with 301 victories. He flew with the famed Jagdgeschwader 52 and Jagdgeschwader 2 (JG 2). Barkhorn survived the war and was taken prisoner by the Western Allies in May 1945 and released later that year. After the war Barkhorn joined the Bundesluftwaffe, serving until 1976. On 6 January 1983, Barkhorn was involved in a car accident and Gerhard died two days later on 8 January 1983.

Bf 109G-6 of the Swiss air force with registration J-704. The G-6 model succeeded their earlier E-models exported from Germany. (Schweizer Fliegertruppe)

Messerschmitt Bf 109 G-2/R6, flown by Oberts Wolf-Dietrich Wickie, Stab JG 3, Pitomnik, Autumn 1942

Messerschmitt Bf 109 G-2/R6, 365 Squadriglia, 150 Gruppo CT, Lecce, end 1942



Bf 109 G-4/R6 with Red Star and winter camouflage

Captured Bf 109G-6 with R.A.F. serial number VX101

guns. The U4 had two additional MK 108 cannons fitted in a streamlined pod under the fuselage that could be replaced by a non droppable fuel tank.

The Bf 109G-10/R2 was built by WNF in Austria. It was a reconnaissance version fitted with FuG IFF radio equipment.

Bf 109G-11 not known.

Bf 109G-12 a two-seat training version with tandem cockpits. They were modified from the Bf 109G-4 and G-6 retaining the standard armament of the respective versions.

Bf 109G-13 not built (no trace found in Messerschmitt archives).

Bf 109G-14 fighter-bomber version with a single MG 151/20 cannon and two MG 131 machine guns. It could be fitted with two extra underwing MG 151/20 cannons or two launching tubes for Wgr 21 rockets. It had under the fuselage an ETC 250 bomb rack. As Bf 109G-14/U4 it had the MK 108 in place of the MG 151.

Bf 109 G-14AS, the most built version of all Bf 109G-AS built. Engine could be DB 605 ASM (until December 1944, or DB 605 ASB/ASC from January 1945 onwards).

Bf 109G-15 not built.

Bf 109G-16 a heavily armed ground attack version that never left the drawing board.

The DB 605 engine variations can be summarized as follows:

DB 605 A used only B4 fuel and eventually with GM-1 over the rated altitude.

DB 605 AM stood for A = first version of DB 605; M = MW 50 with C3 fuel or B4 fuel with MW 50 (emergency power below the rated altitude)

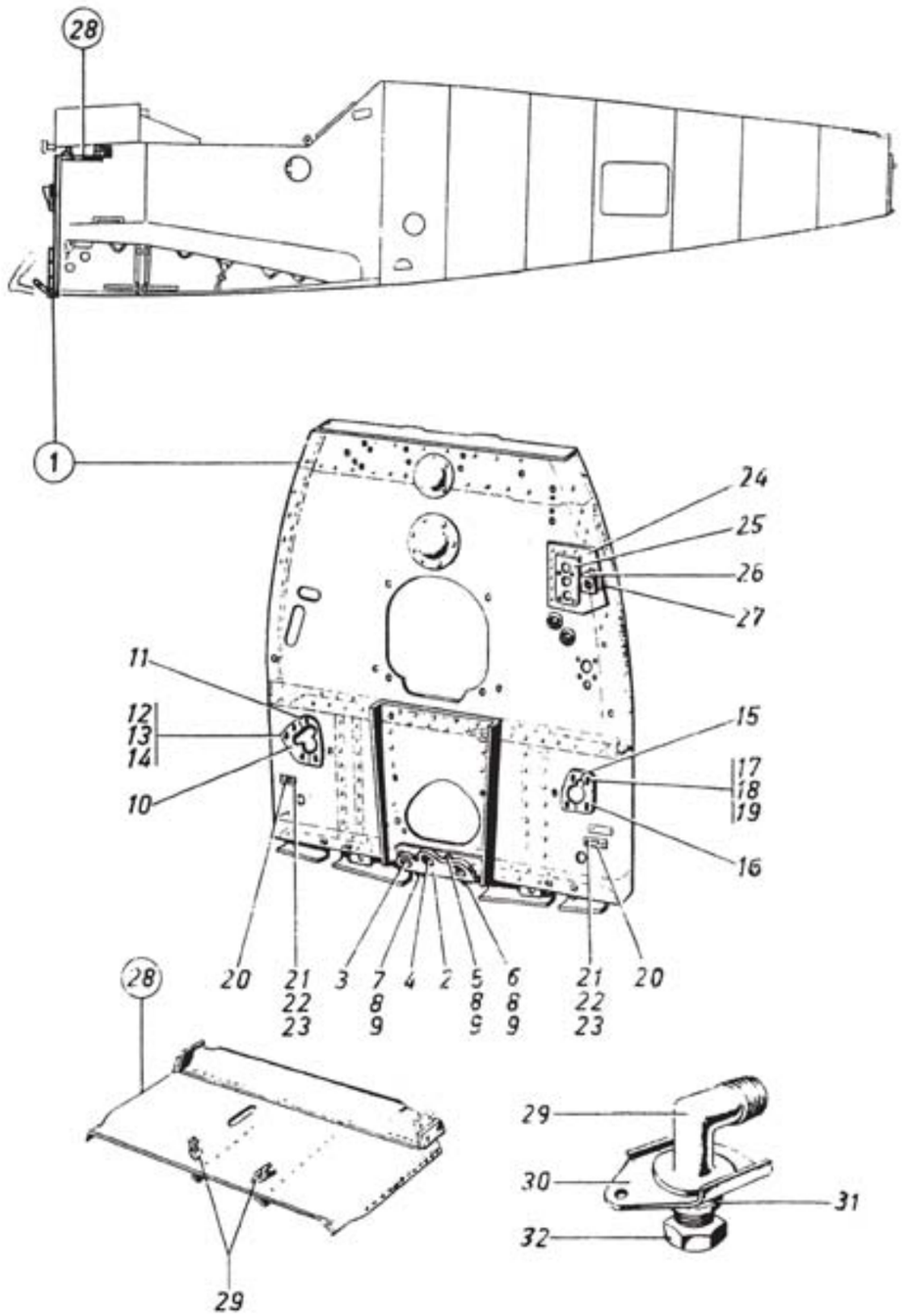
DB 605 AS stood for A = first version of DB 605; S = Sonder (Special) for the DB 603's supercharger mounted on DB 605. Standard on DB 605 D

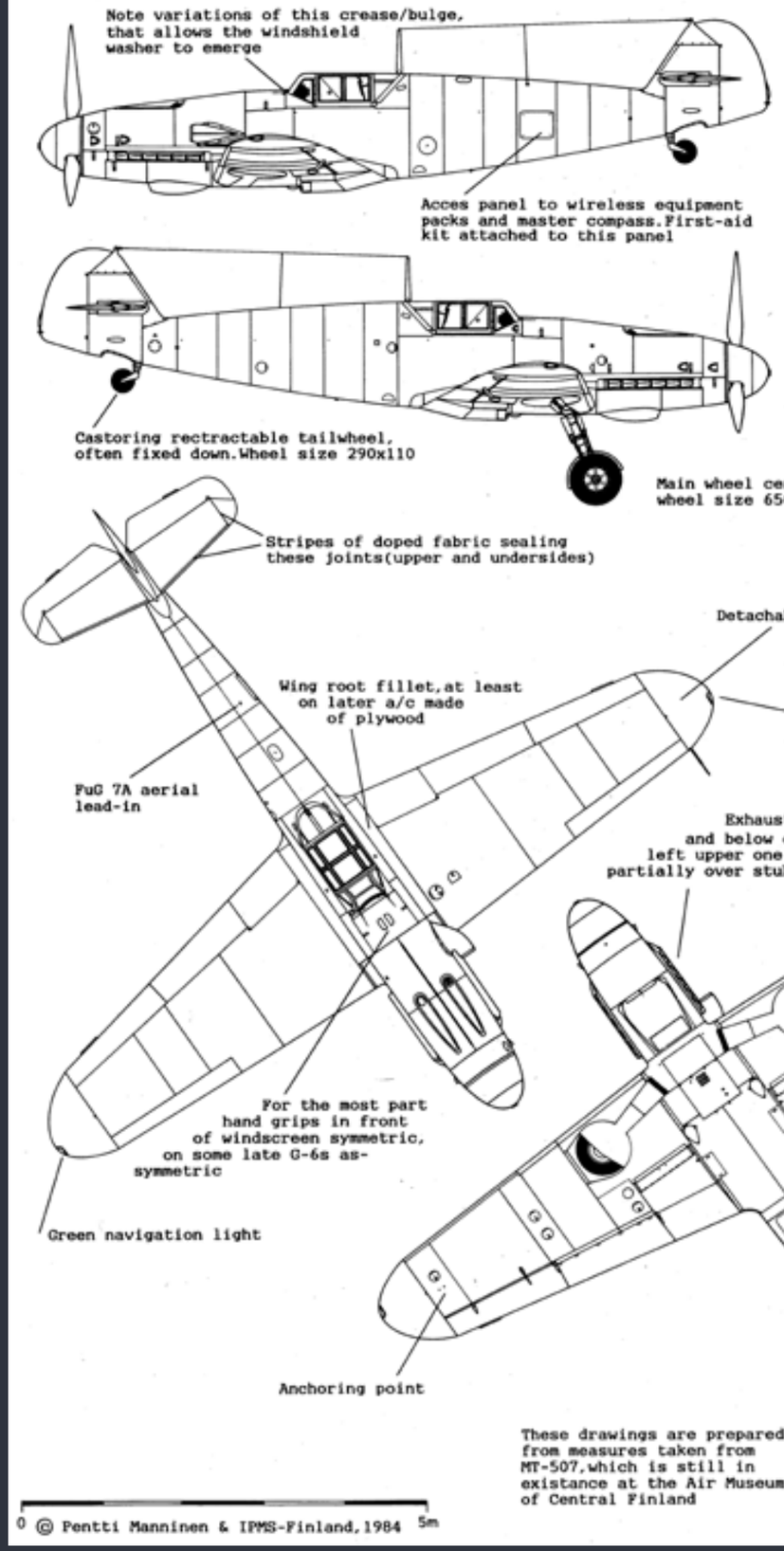
DB 605 ASM stood for A = first version of DB 605; S = Sonder (Special) for the DB 603's supercharger mounted on DB 605; M = MW 50 with C3 or B4 fuels with MW 50 (emergency power for the

Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe: Rumpf 109.116

Ersatzteilliste BF 109 G





Bf 109G-2

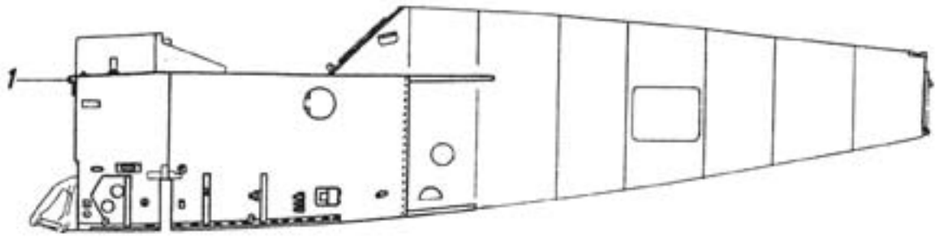
Messerschmitt Bf 109G-2 was unpressurized, hence a cabin air scoop on right side of the windscreen. No cocpit air openings, these were introduced on the G-6.
Note that G-2s within MT-217-230 block were recycled a/c and could have fitted with wheel well bulges but not wider main landing gear tires.
MT-221 was tropicalized a/c with all equipment associated with G-2/Trop
Five G-2s were delivered with ETC 500 bomb racks, but these were removed and aircraft utilized as normal interceptors.

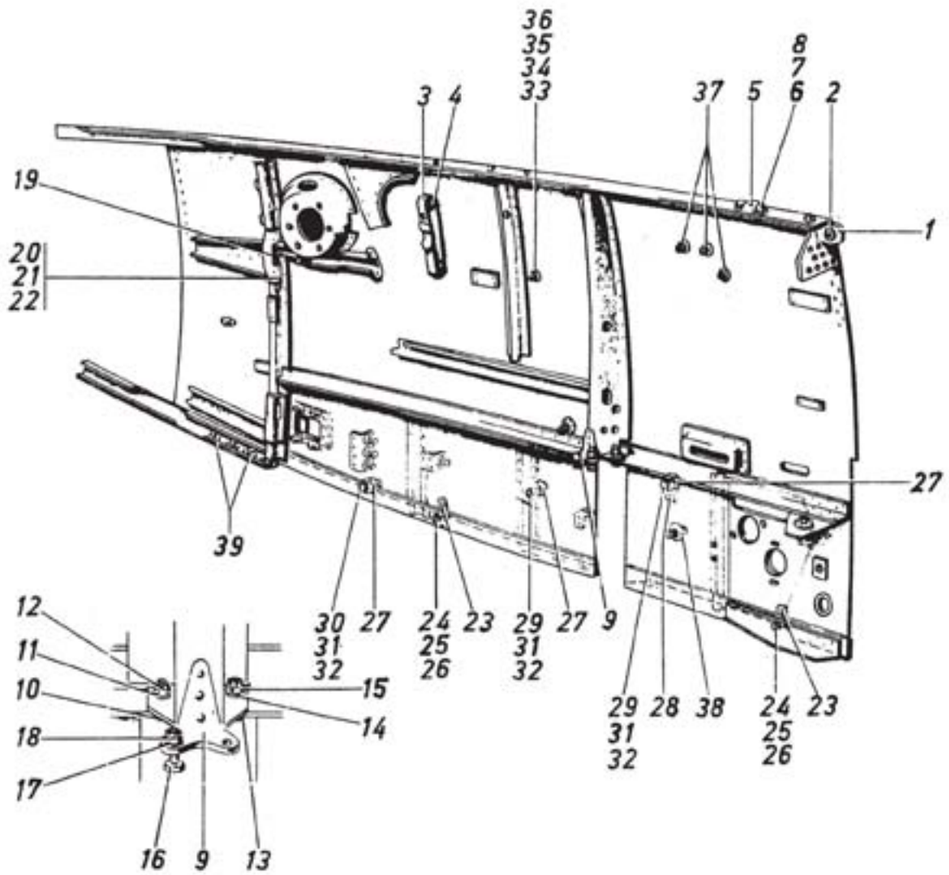
These drawings are prepared from measures taken from MT-507, which is still in existance at the Air Museum of Central Finland

Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Rumpf 109.116

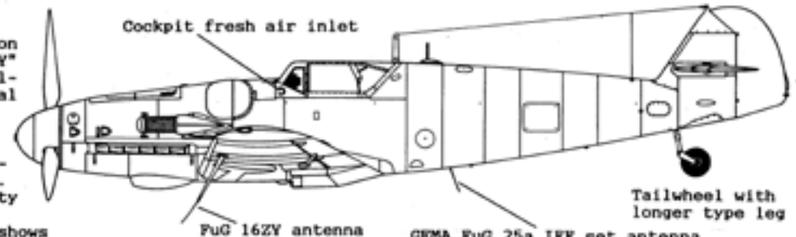
Ersatzteilliste BF 109 G

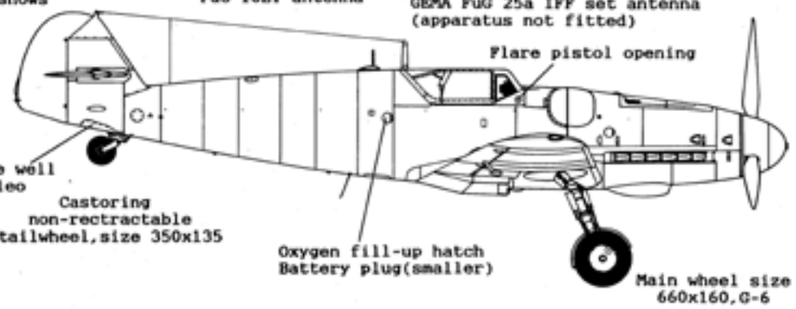


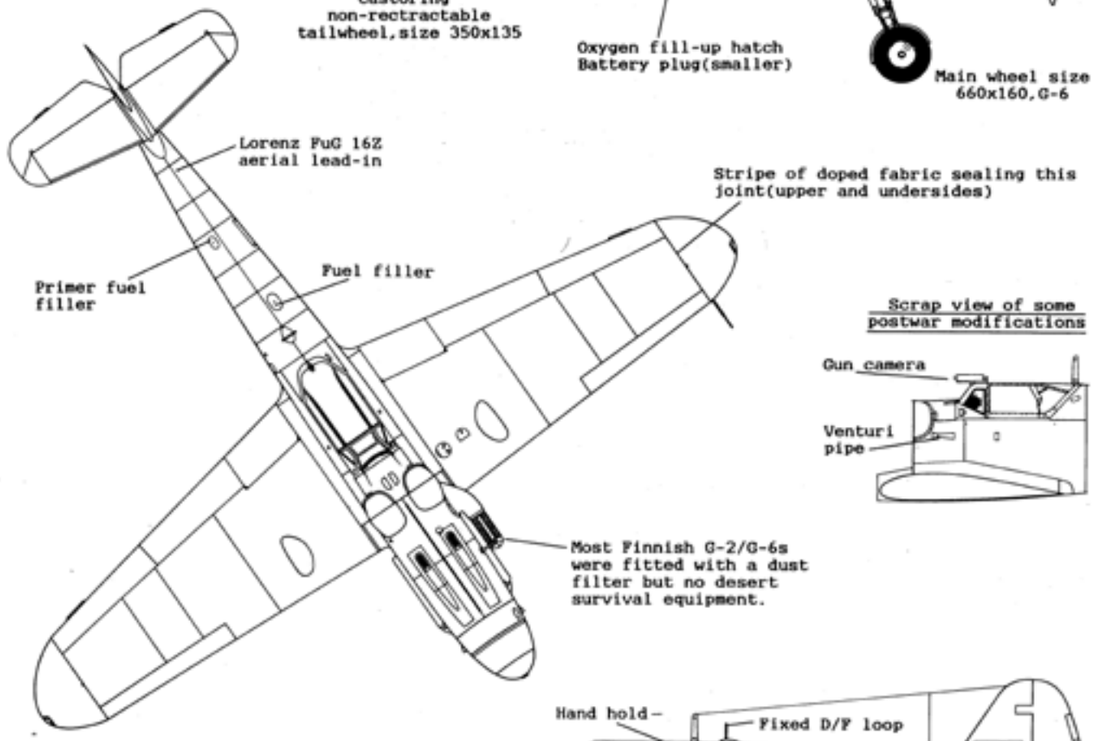


Bf 109G-6

Left:This is a late production G-6, actually G-6/Y.Letter "Y" denotes FuG 16ZY radio installation,which needed additional whip antenna under the left wing.Also longer type tail wheel leg and dust filter installed,but no other equipment to make a true G-6/Trop. Filter was installed due dusty airfields.
Below left:This sideprofile shows a mid-production G-6 except the Erla canopy,which should be safe box type as on G-2. Otherwise this sideprofile represents G-6s within the MT-401-430 block.



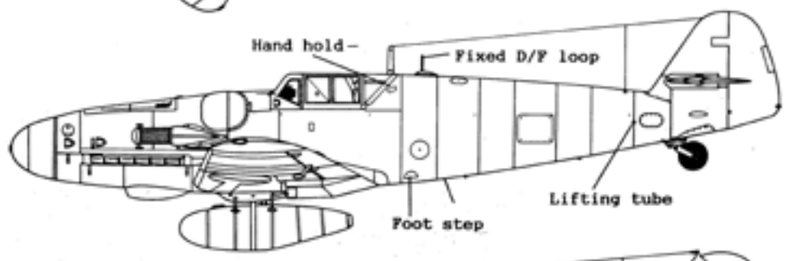




Scrap view of some postwar modifications

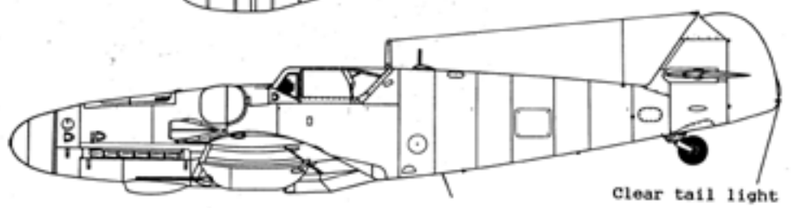
Bf 109G-6/U2/R3

Some 15 G-6 types were delivered with underwing gun packs.From most these were removed by the ground crews but some pilots retained these guns.



Bf 109G-6/R6

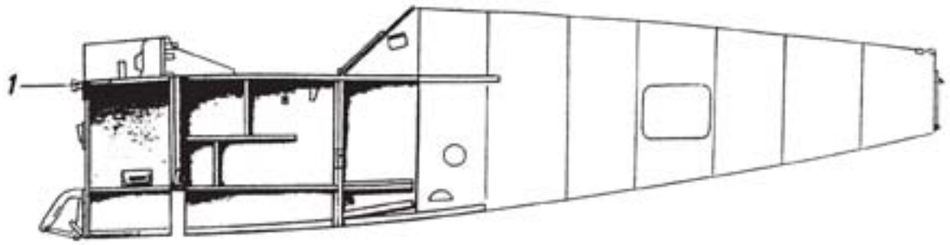
Many G-6 types were fitted up with higher wooden rudder and vertical stabilizer,but were replaced with metal ones as soon as these became available.All G-2/G-6 types were able to carry 300 l drop tank.Rack was installed only when drop tank was carried.

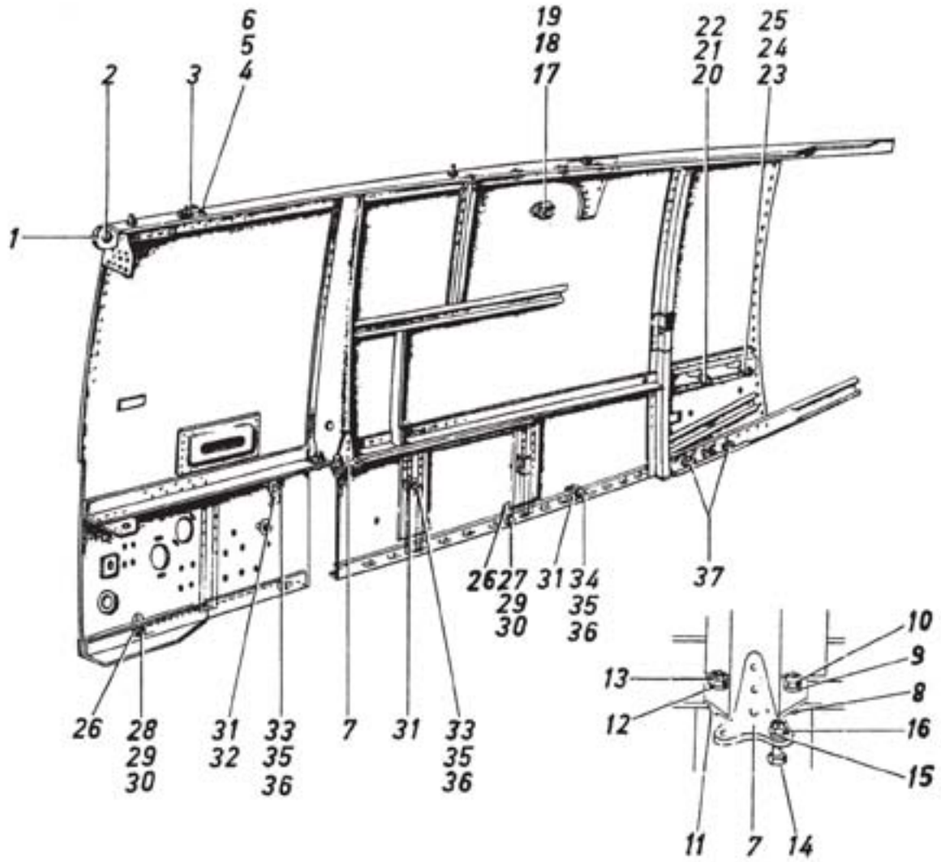


Messerschmitt
A.G.
Augsburg

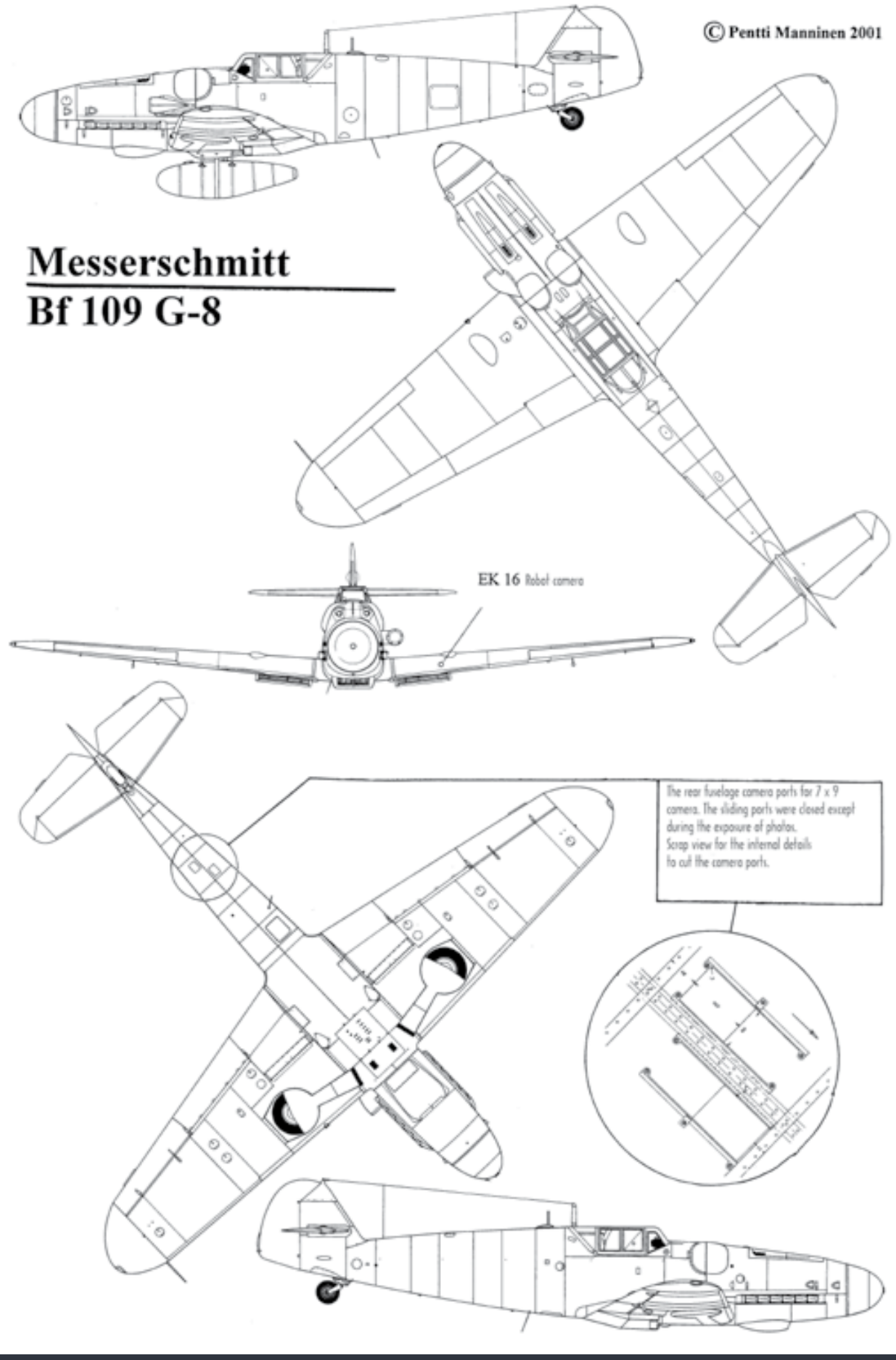
Rumpfwerk
Baugruppe:
Rumpf 109.116

Ersatzteilliste
BF 109 G





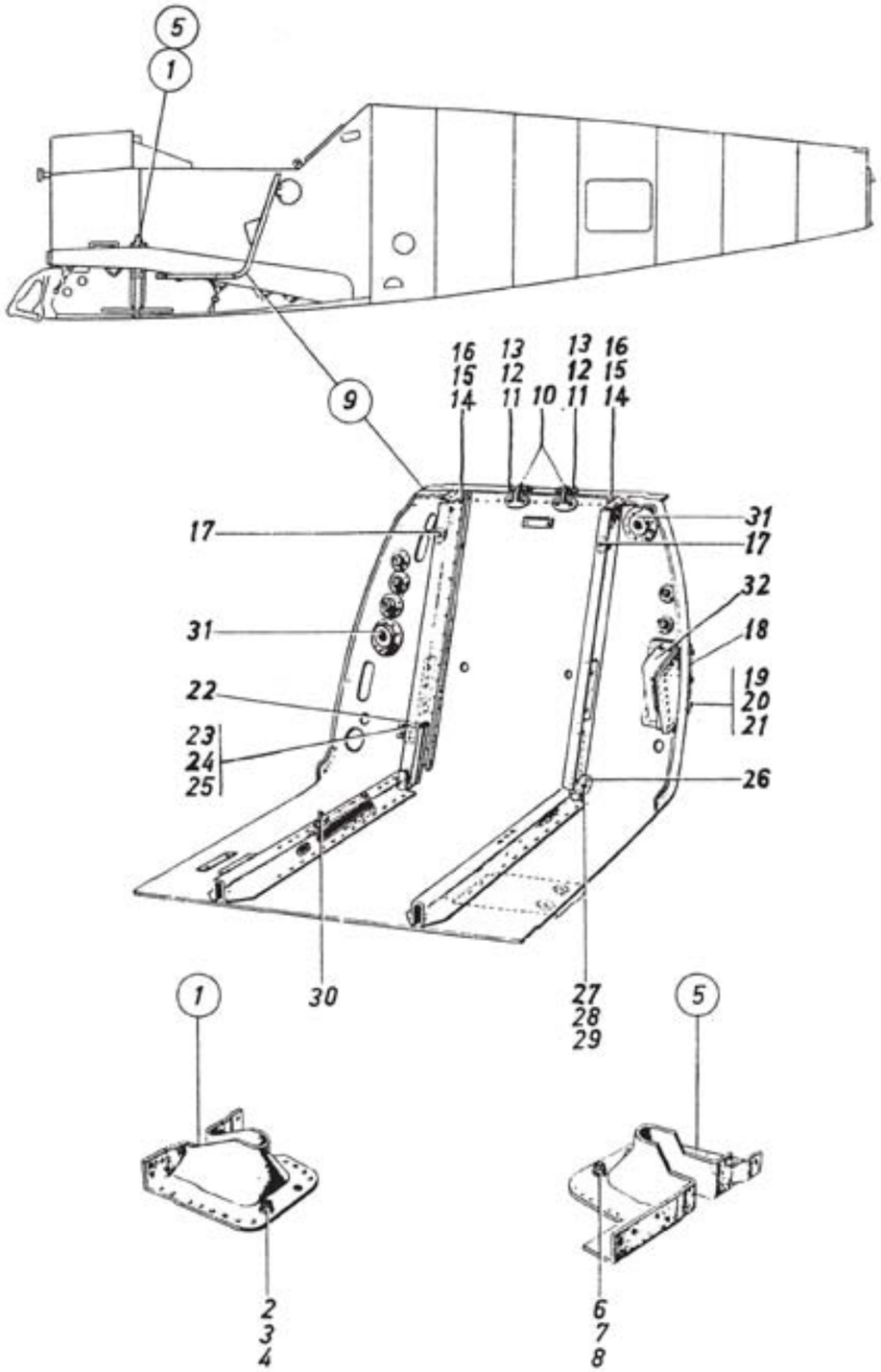
Messerschmitt
Bf 109 G-8



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Rumpf 109.116

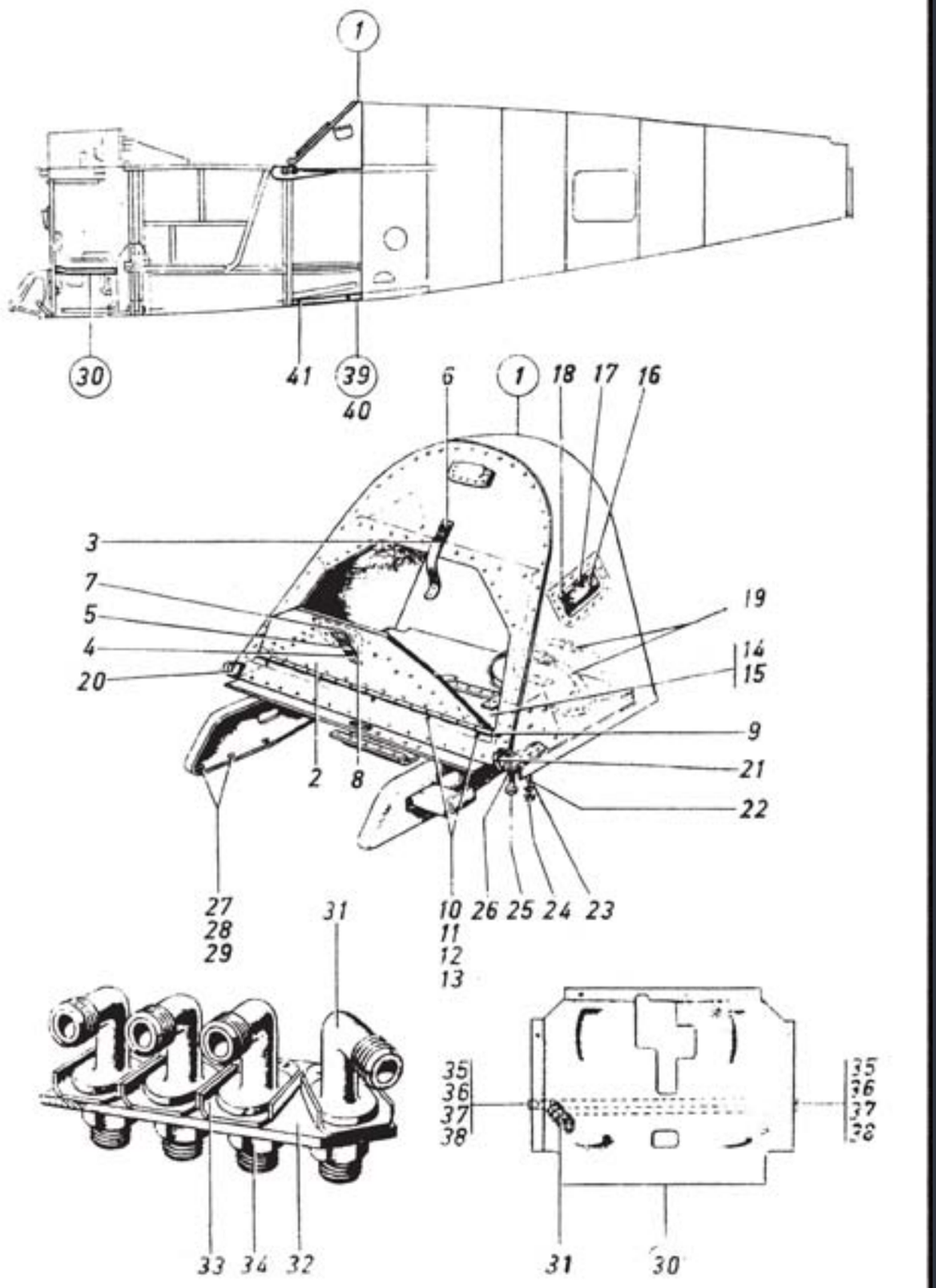
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Rumpf 109.116

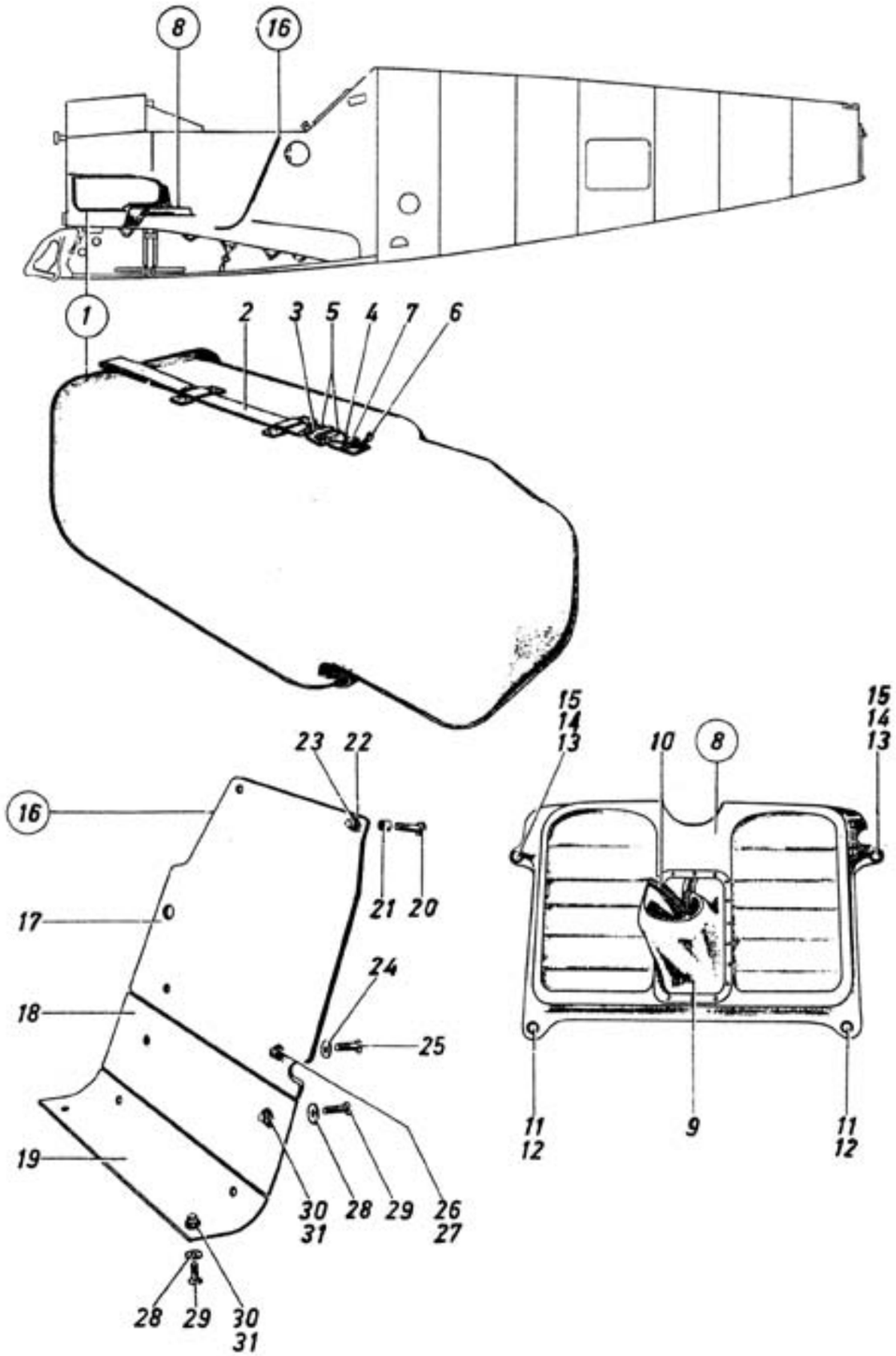
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Rumpfeinrichtung 109.118

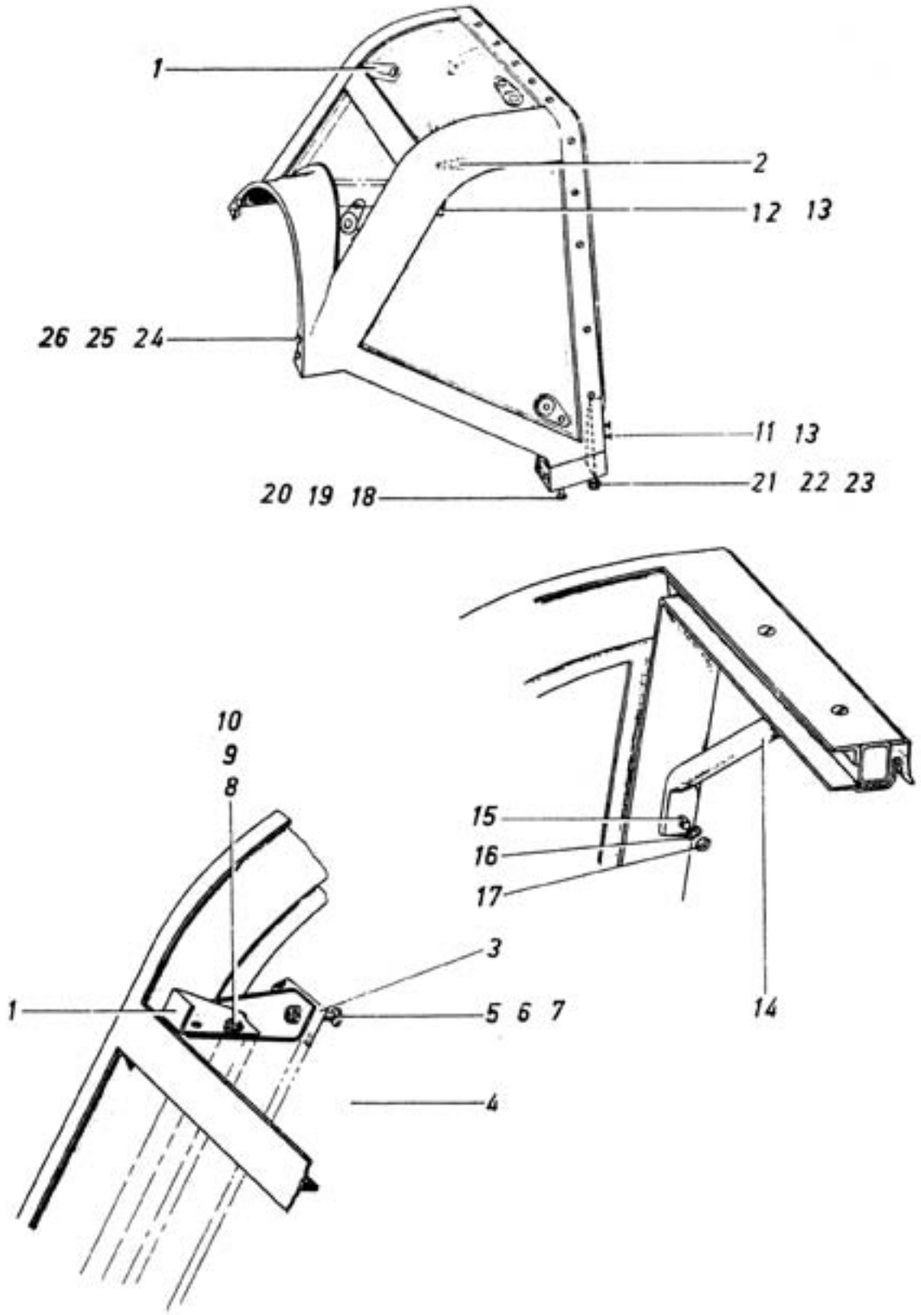
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Windschutz-Aufbau 109.117

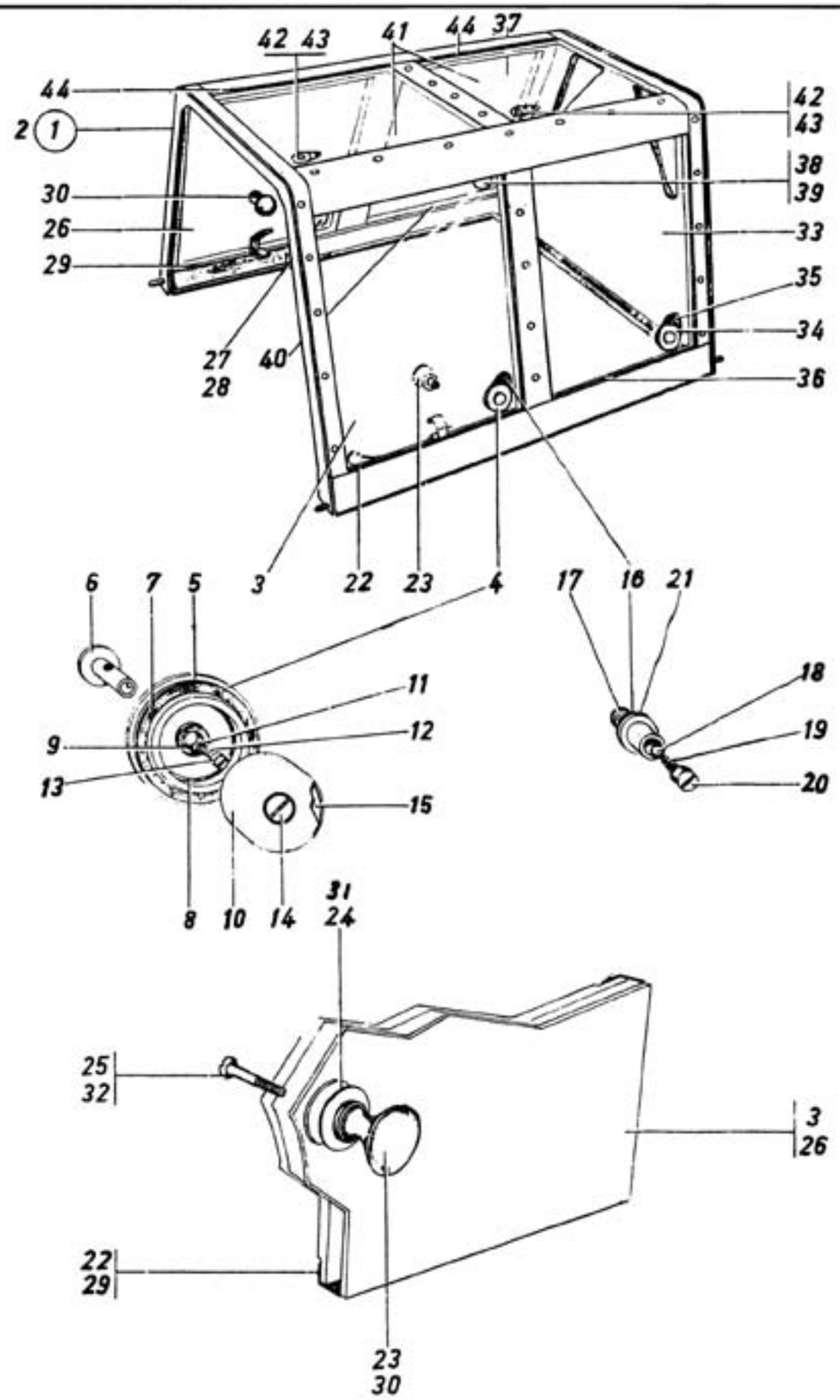
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Windschutz-Aufbau 109.117

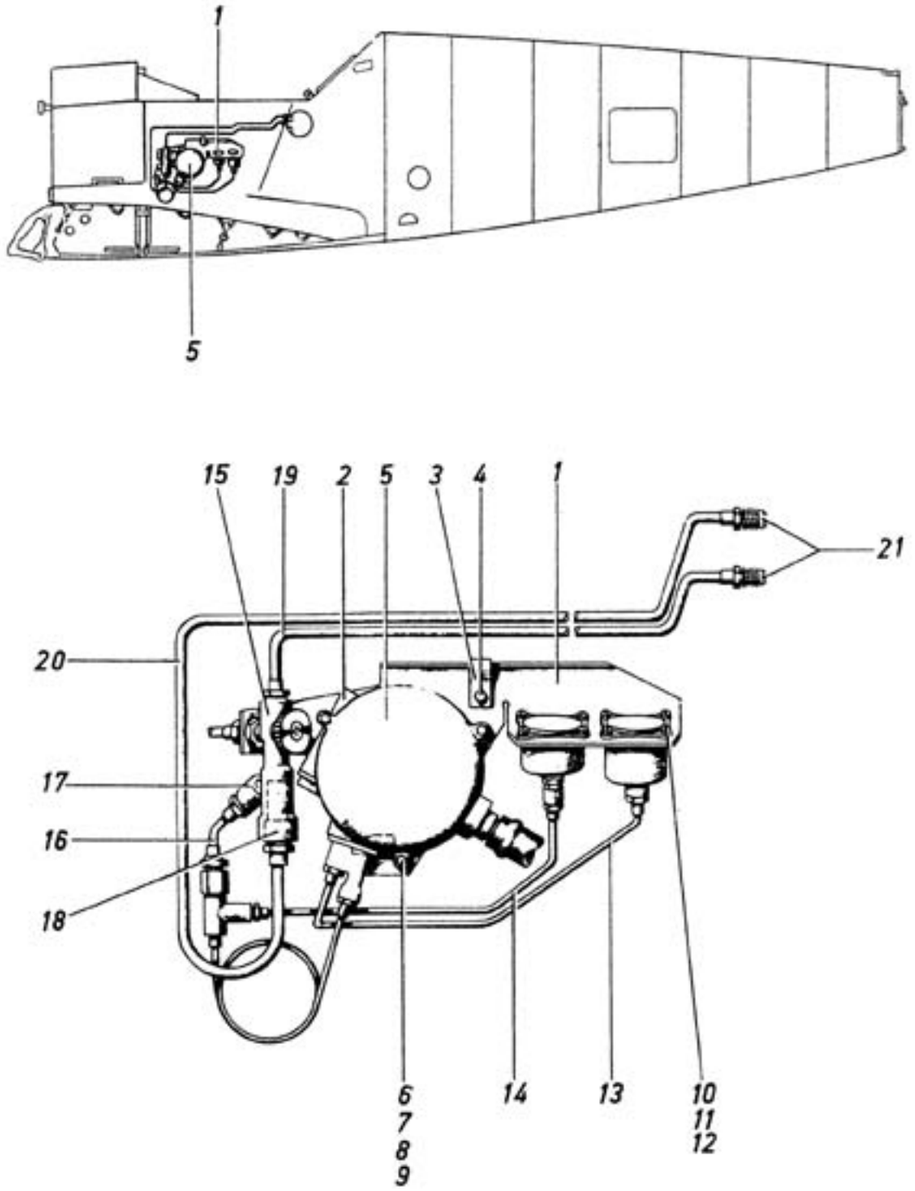
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Sauerstoffanlage vor der Rückwand 109.121

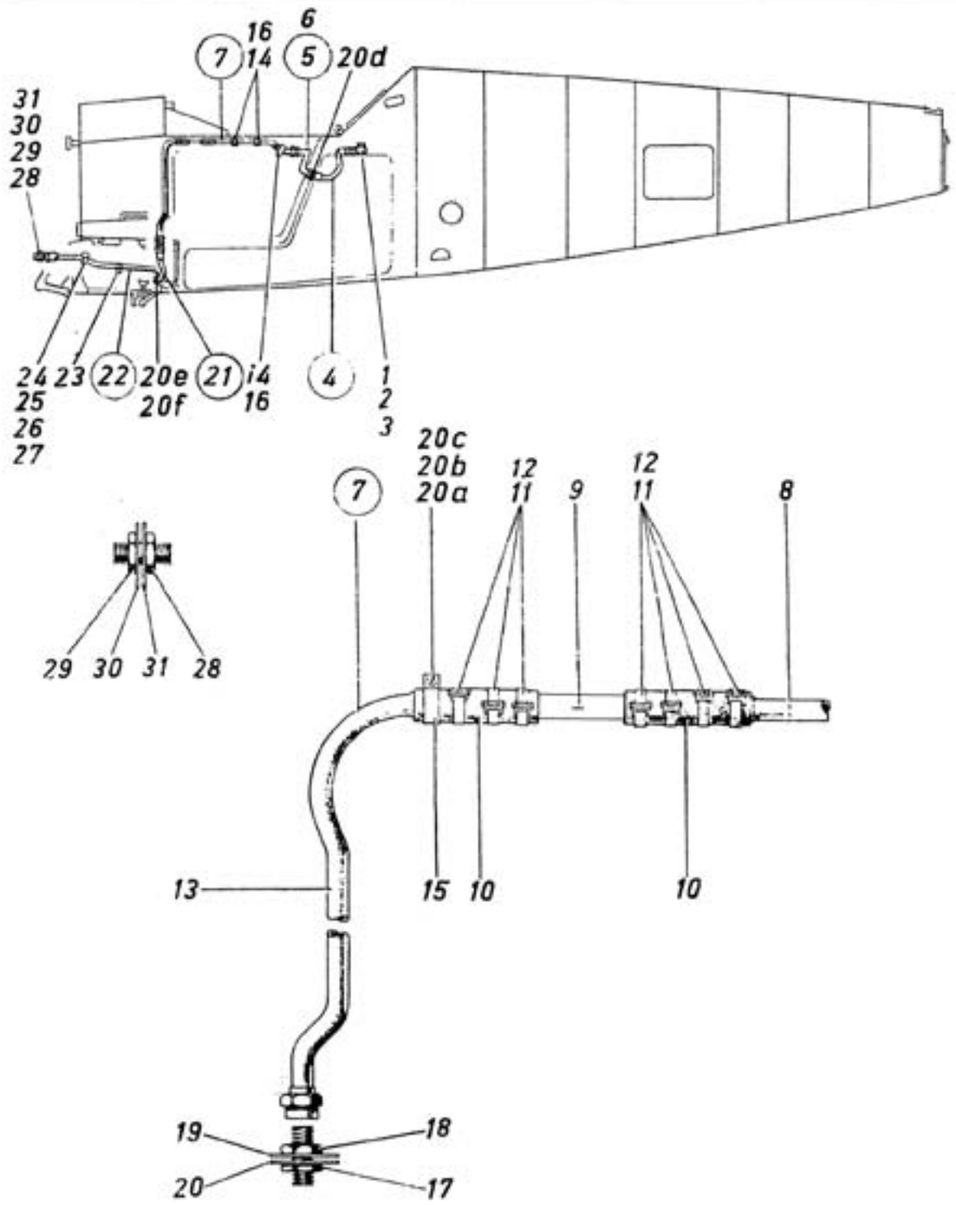
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Zusatz-Kraftstoffanlage im Rumpf 209.7 1

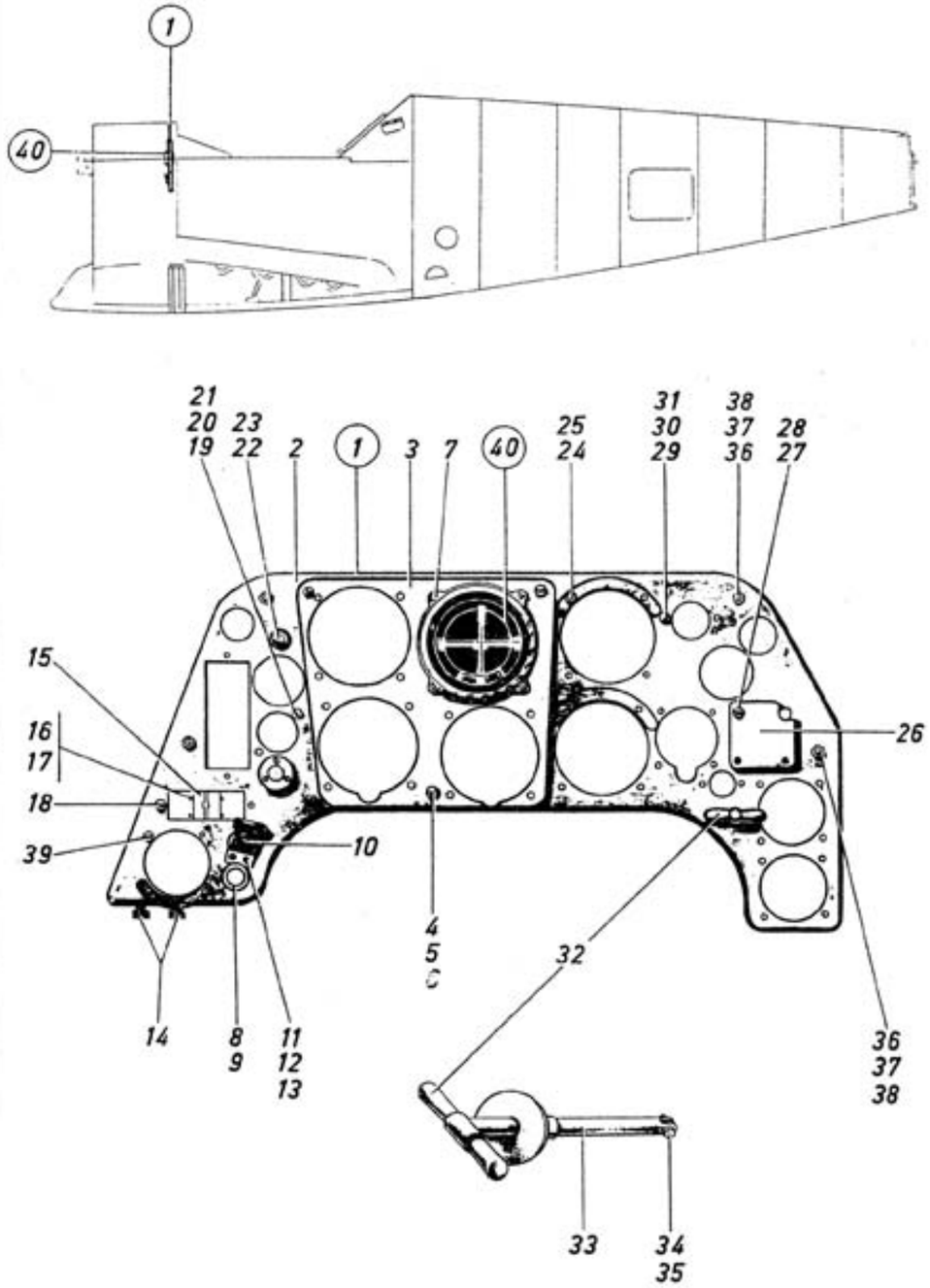
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Rumpfwerk
Baugruppe:
Betriebsgeräte im Rumpf 209.900

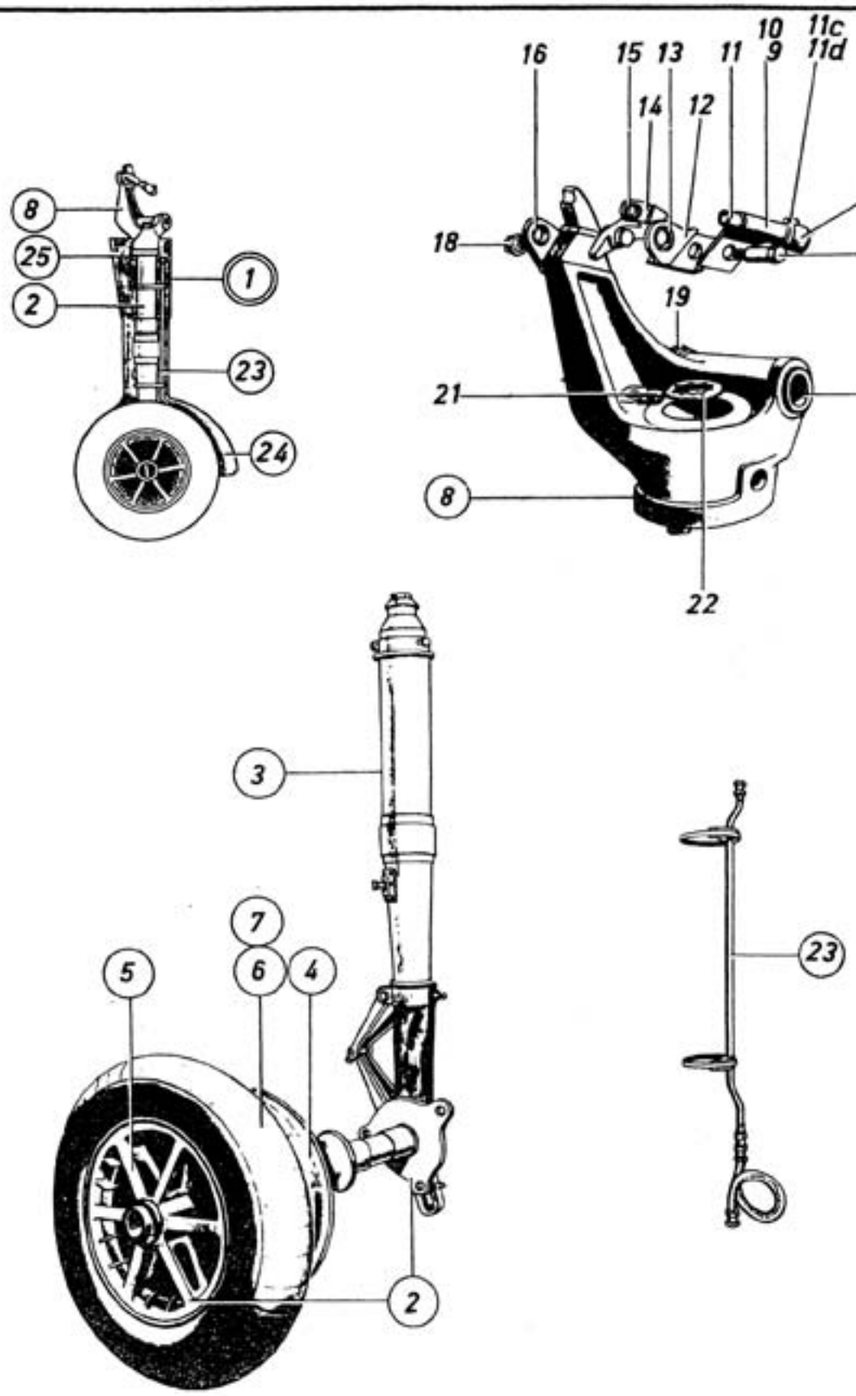
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Fahrwerk
Baugruppe:
Fahrgestell rechts 109.261

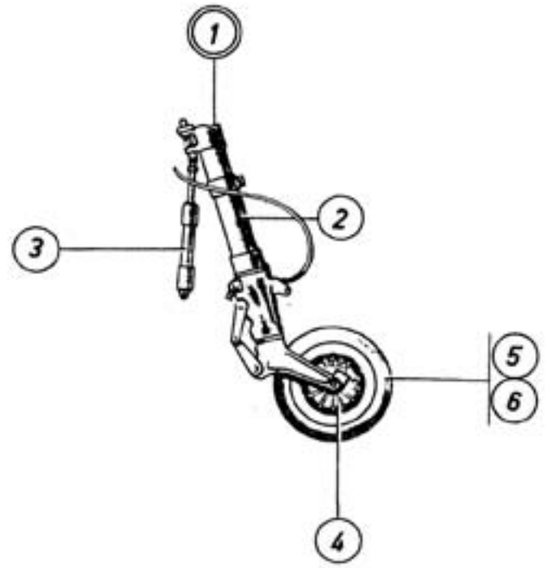
Ersatzteilliste BF 109 G

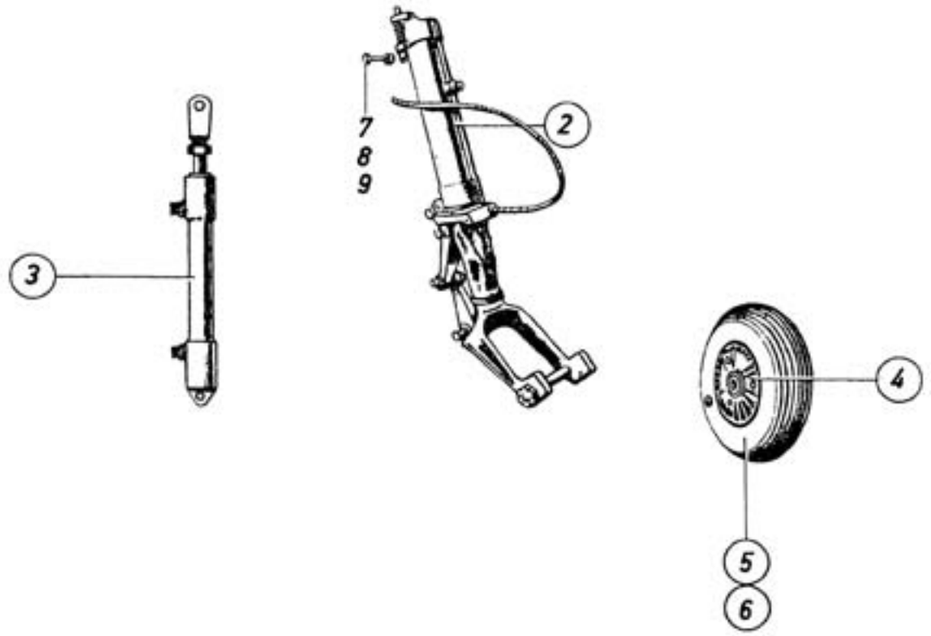


Messerschmitt A.G. Augsburg

Fahrwerk
Baugruppe:
Sporn 109. 264

Ersatzteilliste BF 109 G

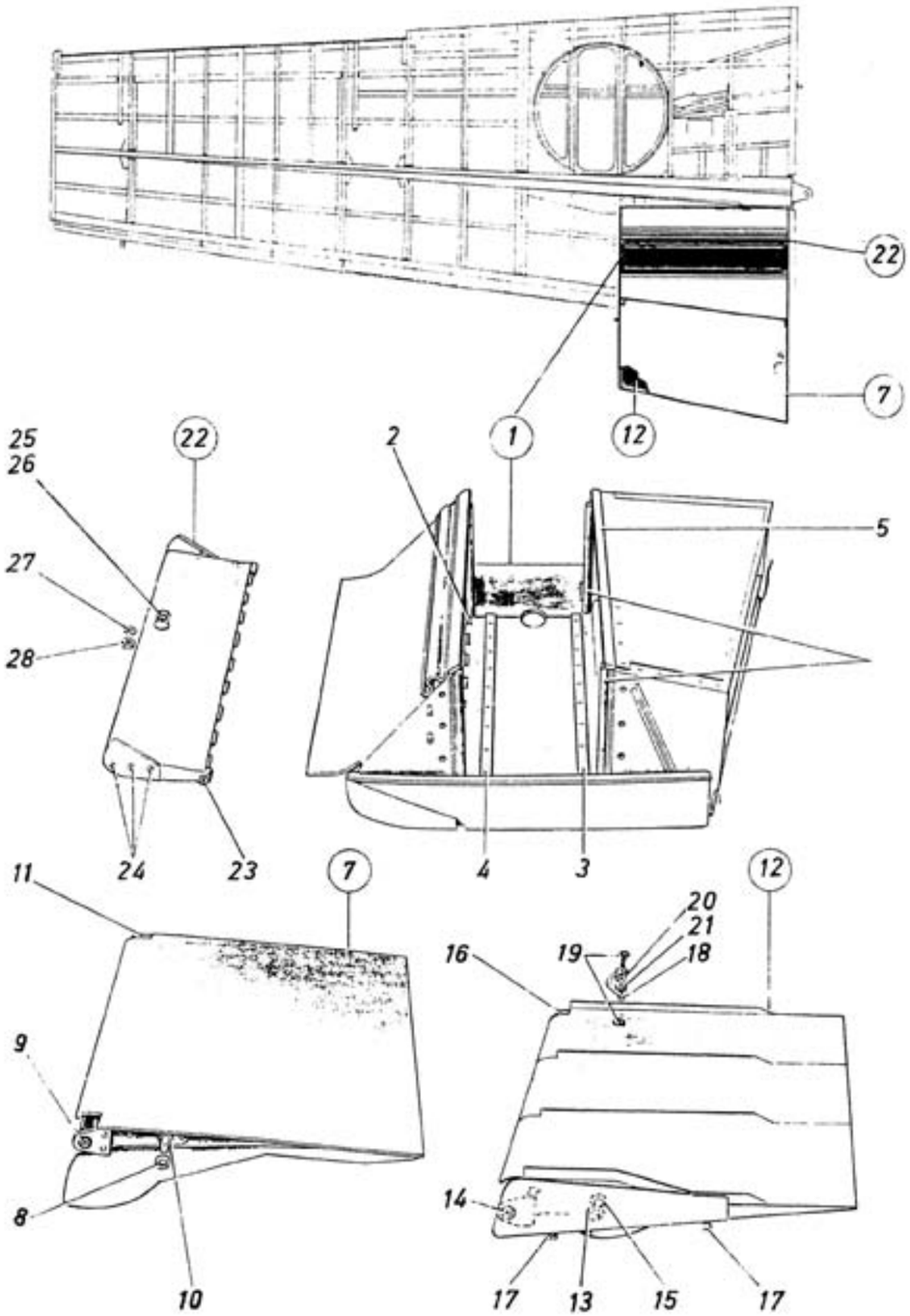




Messerschmitt A.G. Augsburg

Tragwerk links
Baugruppe:
Kühlerverkleidung links 109.581

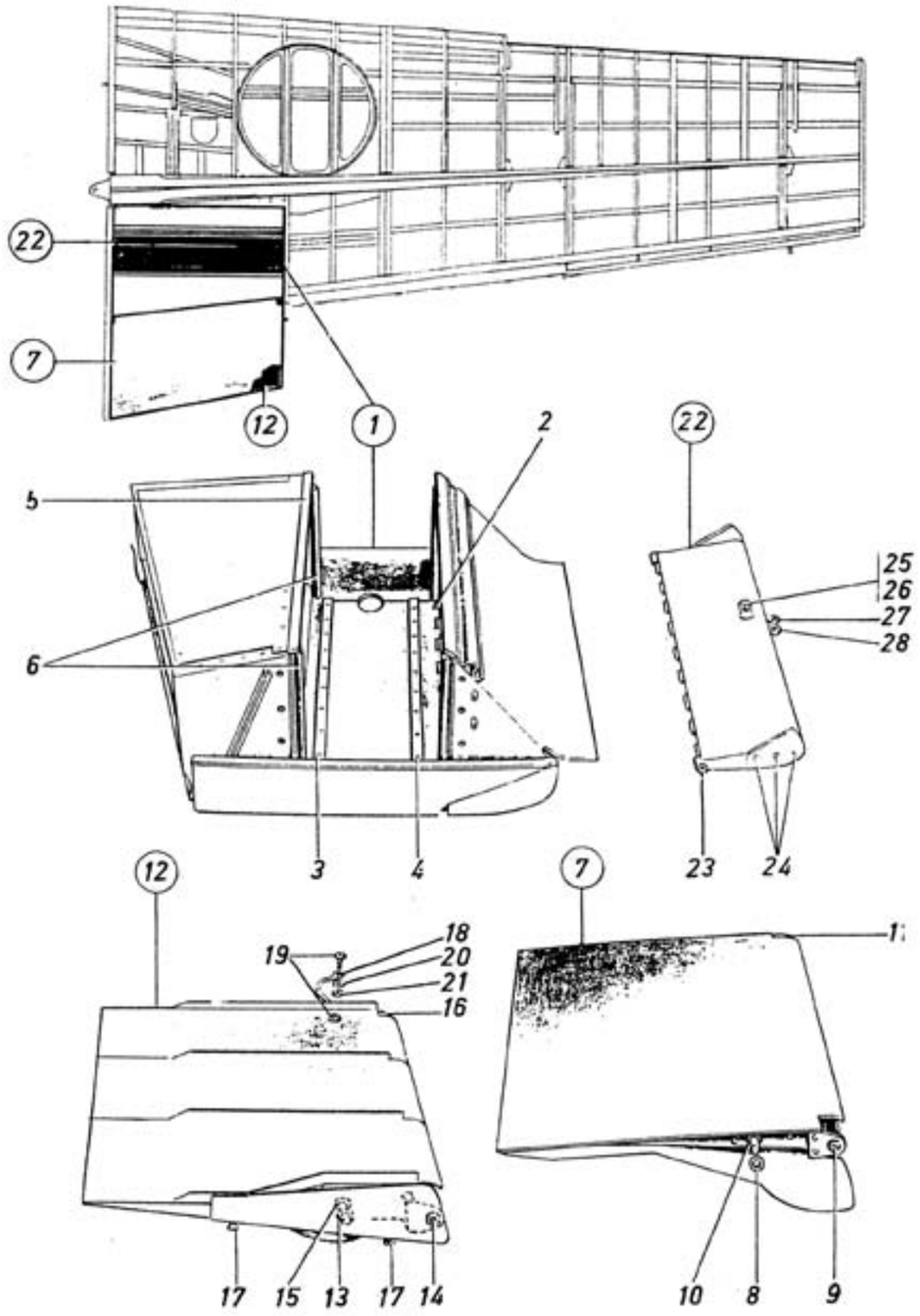
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Tragwerk rechts
Baugruppe:
Kühlerverkleidung rechts 109.582

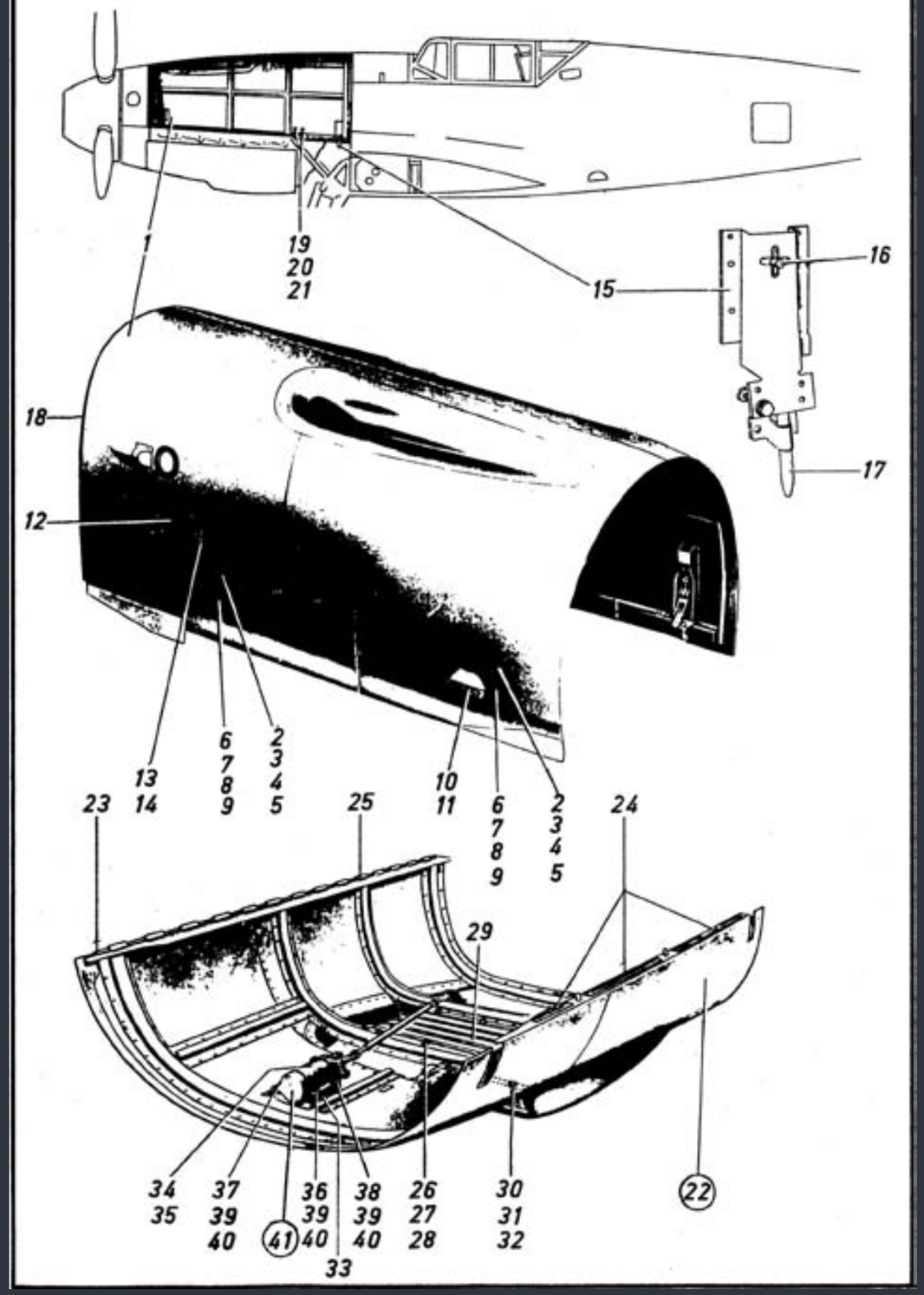
Ersatzteilliste BF 109 G



Messerschmitt A.G. Augsburg

Triebwerk
Baugruppe:
Triebwerksverkleidung 109.648

Ersatzteilliste BF 109 G



Bf 109 G-6 with 21 cm Wfr. BR 21 launchers under the wings.

Two Bf 109 G-6/R6s armed with two underwing MG 151 cannons. Registration of the plane on the background is NK#OO.

Bf 109 G-6/R6, WNr 27083 of 5.-JG2 photographed in 1943 in France

Nice and much published in-flight propaganda-shot of the Bf 109G-6 from JG 27

Bf 109 G-4/R6, black at top

A derelict Bf 109 G-6/U2, WNr 410061, found at Wunstdorf in 1945. (Jim Crow collection)

latter)

Other AS engines :

DB 605 ASMO stood for A = first version of DB 605; S = Sonder (Special) for the DB 603's supercharger mounted on DB 605; M = MW 50; O = Oktan-Selektor (Octane-choice) (First designation of BD 605 ASB/ASC before January 1945)

DB 605 ASB stood for A = first version of DB 605; S = Sonder (Special) for the DB 603's supercharger mounted on DB 605; B = C3 fuel without MW 50 or B4 with MW 50

DB 605 ASC stood for A = first version of DB 605; S = Sonder (Special) for the DB 603's supercharger mounted on DB 605; B = C3 fuel with MW 50.

Those two engines could be adjusted for B4 (87 octane) or C3 (96-100 octane) fuel with an octane-choice device.

DB 605 D :

DB 605 DMO stood for D= fourth version of the DB 605; M = MW 50; O = Oktan-Selektor (Octane-choice) (First designation of BD 605 DB/DC before January 1945)
DB 605 DB stood for D= fourth version of the DB 605; B = C3 fuel without MW 50 or B4 with MW 50
DB 605 DC stood for D= fourth version of the DB 605; C = C3 fuel without MW 50 with MW 50
Those two engines could be adjusted for B4 (87 octane) or C3 (96-100 octane) fuel with an Oktan-Selektor (octane-choice device).

DB 605 B, BS, E were respectively equivalent to A, AS and D versions with a different gear box (different ratio between engine and propeller) for very high altitude. Rarely used.

The suffix 'R' stood for Rüstsatz , or 'equipment package' .

R1: bomb rack 1 ETC 500/IX or ETC 250.

R2: was photo reconnaissance equipment. It lacked the pressurised cockpit and fuel tank armouring of the Bf 109G-1.

R3: was the functioning system of transferring fuel from the auxiliary tank to the main 400 litres fuselage tank with the aid of compressed air coming from the engine supercharger. The number of auxiliary tanks could be one under the central fuselage belly or two; one under each wing.

R4: 2 streamlined wing pods with 1 MK 108 30 mm cannon each.
R5: same 'recce' equipment and fuel tanks under the wings as on the Bf 109G-4/R3.

R6: two underwing MG 151/20 cannons, one under each wing in a streamlined pod

'U' stood for Umrüst-Bausatz or 'modification construction set'. There were six U-sets available for modification depending on the specific task the Bf 109G had to fulfil. U1 to U3 were power modifications; U4 to U6 were armament modifications.

U1: Me P6 propeller.

U2: GM-1 boost (nitrous oxide).

U3: reconnaissance equipment.

U4: the modifications for the installation of these weapons (or the unique axial MK 108 firing through the propeller hub) was the object of "U4" (reinforcement of the wings and installation of compressed air bottles in the fuselage for working the MK 108s (pneumatic loading and electrical firing). The modification was ex-

Messerschmitt Bf 109 G-5, unit JGr. 50, Wiesbaden-Erbenheim, 1943. This unit was specific in field modification of basic camouflage.

Messerschmitt Bf 109 G-6/U2 (Erla), WNr. 463141, no additional info of unit and pilot

Messerschmitt Bf 109 G-6/MW/AS, 2/JG 3, Monchengladbach, 1943

Messerschmitt Bf 109 G-6/AS, 9/JG 1, Wiesbaden-Erbenheim, 1944

Erla-built Bf 109 G-6/U2/R6, WNr 412951 with R.A.F. serial TP814. Its previous identity at the Luftwaffe was NS#FE of JG300. A typical snap made with non sensitive film (yellow and red rendered black). The lisible black RAF serial is due to sunlight reflexion on the paint (Mick Gladwin collection)

A wrecked Bf 109 G-6/MW, WNr 165545, as found by Allied forces at Augsburg in May 1945. (Jim Crow collection)

clusively made by WNF in Austria who produced G-6/U4 and G-10/U4 versions.

U5: 3 x MK 108 30 mm cannons.
U6: provisional MK 103 installation. It was not used on a wide scale since it was regarded as too heavy.

The armament U-sets were specific for the Bf 109G-6, G10 and G-14. U1 to U3 could also be fitted on other versions. In the sub-type designation methanol/water injection MW-50 was only marked as follows : 'Bf 109G-6/MW'

One Bf 109G, Werknr. 14003 with registration VJ#WC, flew with an experimental V-tail during the spring of 1943. Although it flew as well as the standard version with a normal tail, the V-tail remained an

Bf 109 G-6/AS, pilots girlfriend nickname on fuselage

Messerschmitt Bf 109 G-6/ASN, 1/ NJGr. 10, Werneuchen, 1944

Messerschmitt Bf 109 G-6 from Stab I/JG 52

Messerschmitt Bf 109 G-6/R6, from 6/JG 53, Littoria, September 1943

A Bf 109 G-6/U4 in Italy. Nose emblem is from 'Pik-As' JG 53 (Jean-Claude Mermet collection)

Wreck with a broken fuselage of a Bf 109 G-8 reconnaissance version. (Photo by John Bailly)

experiment!

Initially all Bf 109G's were fitted with the standard cockpit canopy of the earlier versions with its very broad frames. Pilots had always complained about this canopy since it gave a very restricted view to the outside world and that for a fighter was unwanted. This was solved by fitting a new full-blown canopy with limited internal framing. It was manufactured by the Erla works and was consequently called the Erla-Haube or Erla Hood. It also became known as the 'Galland-Hood' but it seems that this name was 'invented' after the war by some authors! The Erla-Haube did not provide the perfect all-round view of the bubble canopy on the U.S. P-51D Mustang, but it was a vast improvement over the earlier type.

With more power, but also with more armour and armament the subsequent versions of the Bf 109G had an all-up weight that gradually increased. With the wing

Hungary 1944 or 1945, Bf 109 G-10 with pilot Heinz Ewald of 5./JG52 and his mechanic. Ewald was credited with 84 victories in 395 combat missions by the end of the war (Bernd Barbas collection)

Messerschmitt Bf 109 G-6/R1, Stab I/JG 51

Bf 109 G-6, WNr 27083, 5./JG 52. 1943

Veszprem, Hungary 1944 or 1945: WNF built Bf 109 G-10 with pilot Fw. Heinz Mannel of 6./JG52. (Bernd Barbas collection)

area unchanged that meant a ever increasing wing loading. This had an adverse effect on the flight performances, especially at higher altitudes. Although the Bf 109G was not intended as a high-altitude fighter (it was rather a lightweight fast climbing interceptor), it fought mostly at altitudes above 5000 m, especially in home defence sorties against American day bombers like the B-17 and B-24. These operated mainly at some 7000-7500 m altitude. The Focke Wulf FW-190 flight performance deteriorated rapidly above 5000m, making it less suitable to attack high-flying bomber formations. For bomber interception the Bf 109G was fitted with a heavier cannon armament. The basic tactic was to fly in formation alongside the large bomber formations but beyond their firing range. Then they turned in to meet the bombers for a frontal attack. When successful the big cannons inflicted such heavy damage that, even if the bomber did not break up in flight, it had to leave the formation. Once this happened, it became a straggler and at this stage the chances of a safe return to its home base were substantially reduced! However, the cannon-armed Bf 109G's were definitely not on even terms against escorting Allied fighters! These were mostly 'kept busy' by lighter versions with smaller calibre weapons! In general the specialised 'Viermot' or '4-engine' killers tried to avoid contacts with the escort fighters. A frontal attack of the Allied bombers with the heavy armed Bf 109G's required not only great skill, but also great courage and the most successful German aces scoring against Viermots had both! A frontal attack on the big bomber formations not only exposed the German fighters to their own flak, but it also meant

Messerschmitt Bf 109 G now in different colors, standard RAF day fighter camouflage and tested

Messerschmitt Bf 109 G-6 from Romanian Grupul 7 vanatoare, Budapest, 1944

Bf109G-6 Y flown by Hartmann name Usch under the cockpit

Messerschmitt Bf 109 G-6/R6, WNr 165267, Skz GU+LS, flown by Sgt. E. Lyly, from 1/HLeLv 34, Lappeenranta, Summer 1944

A WNF built Bf 109 G-10 of 2./JG52 at Veszprem, Hungary. (Bernd Barbas collection)

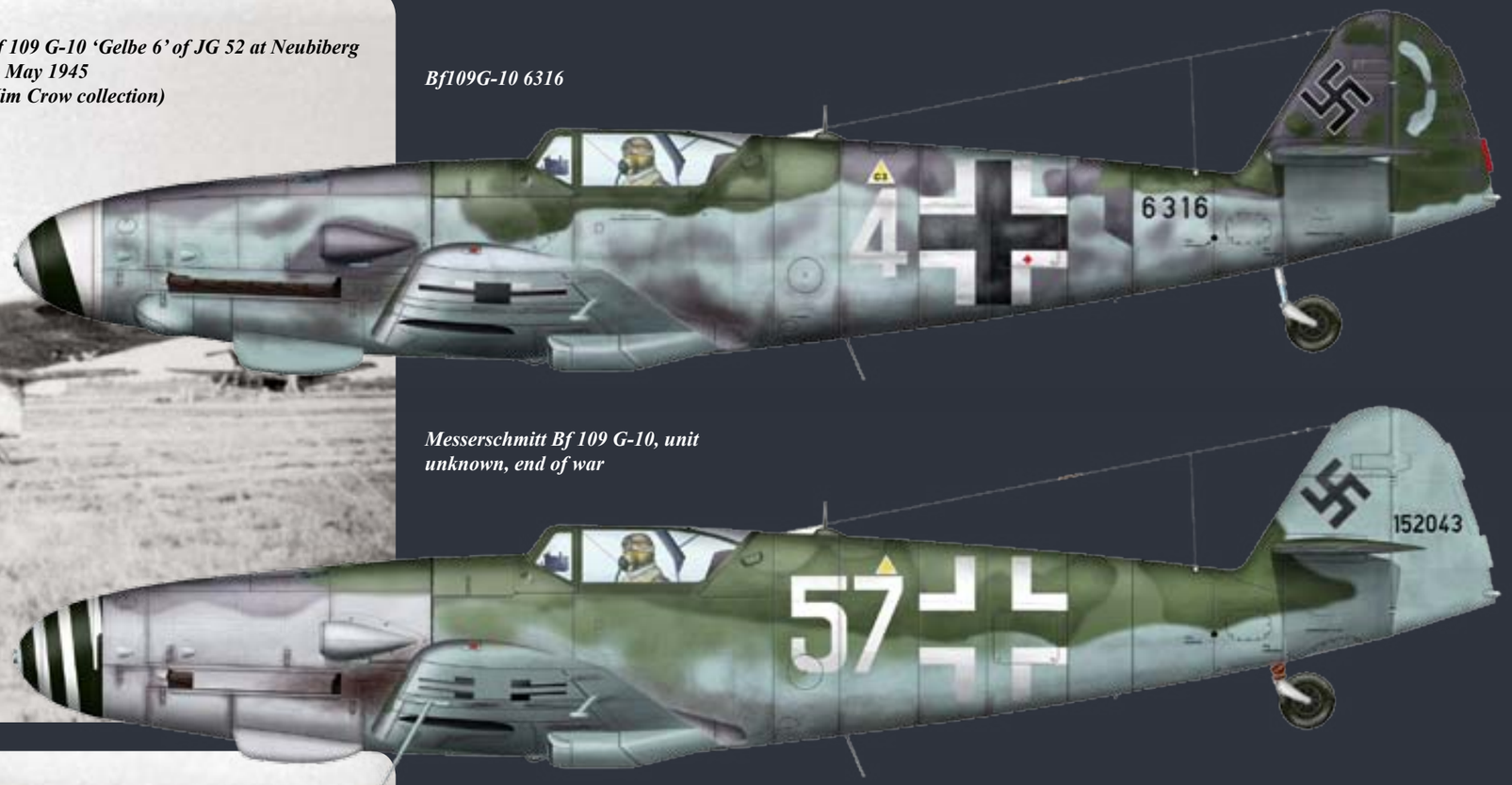
Lt. Heinz Ewald of 6./JG52 posing in his Bf 109 G-10 with a Luftwaffe technician. (Bernd Barbas collection)

they had to fly straight through the bomber formation's defensive fire from dozens of gun positions!

It was a risky business and a deadly game for the German pilots, even when they succeeded in avoiding the escorting P-51 and P-47 fighters! In spite of this, such coordinated fighter attacks could inflict heavy losses on Allied bombers. Typical examples were during the Schweinfurt daylight raids. The first one took place on 17 August 1943 with a formation of 229 B-17's. The objective was to bomb ball-bearing factories and during this raid no less than sixty bombers were lost; most of these shot down by German fighters. Another

Bf 109 G-10 'Gelbe 6' of JG 52 at Neubiberg in May 1945
(Jim Crow collection)

Another shot of Bf 109 G-10 at Neubiberg, this time white 5. Repainted area under fuselage number indicate previous service in another unit.
(Jim Crow collection)



Bf109G-10 6316

Messerschmitt Bf 109 G-10, unit unknown, end of war

87 B-17's were damaged. During this attack there were no escort fighters to protect the bombers! On 14 October of the same year, the raid was repeated by 260 B-17's, again without sufficient escort and again losses were terrific: 65 bombers were shot down, 12 returned back with damage beyond repair an another 121 had to be repaired. Also on daylight missions to other German targets it was evident that large formations of U.S heavy bombers B-17 and B-24 were unable to defend themselves effectively against German fighters! Only the arrival of large numbers of long-range P-51D Mustang fighters turned the tide in favour of the Allies.....

By that time, there were still enough Bf 109's, and also FW-190's, but a lack of sufficiently trained pilots, a lack of fuel and spare parts and in particular a lack of 'air superiority' simply meant the Luftwaffe was losing. Even the introduction of the new Messerschmitt Me-262 jet fighter could not change this: there just were not enough available!

The Bf 109G was also very active on the battle fronts , in particular on the Russian front where large formations of low flying Ilyushin Il-2 bombers were attacking German forces. For the cannon armed Messerschmitts and Focke Wulfs these single engine bombers were a relatively easy prey and that may explain why the top of German air aces like Erich Hartmann gained so many aerial victories! However, the increasing number and quality of the Russian fighters drew a heavy toll on the German fighter squadrons and at the end of the war only few 'Experte' survived!

In spite of this the Bf 109G and K were used until the very last days of the war and in the hands of an experienced pilot it still was a very dangerous and effective weapon when encountered by Allied pilots.

Between G and K

One of the lesser known Bf 109 variants was the Bf 109H. Development of this special high-altitude fighter started early in 1943. It had an increased greater wingspan of 2 metres by adding an additional section to the wing root. This also meant it had a wider track main undercarriage when compared with all standard versions. From the beginning pilots had complained about the narrow track wheels which made the Bf 109 tricky to land, in particular under crosswind conditions. Consequently landing accidents with ground loops were

Messerschmitt Bf 109 G-10/R2, NAGr. 14, Furth, May 1945

Messerschmitt Bf 109 G-10 from JG 300, Erla production machine, JG 300

Messerschmitt Bf 109 G-10 from JG 300, Erla production machine, info of units are not known

Messerschmitt Bf 109 G-10 from II/ JG 52, Neubiberg, May 1945

Shot of the aircraft scrap heap at Neubiberg with Bf 109 G-10 '< 3' at the foreground and a Bf 110 night fighter at the background. Souvenir hunters have already removed the swastika on the tail. (Jim Crow collection)

Neubiberg May 1945: row of Bf 109 with in front G-10 'No. 21'. Schwarze 22 is an Erla-built G-10 and belonged to 5./JG 52 (Jim Crow collection)

frequent. With its wider track and larger wing it was at least easier to land than the standard Bf 109. The Bf 109HV1 prototype was converted from Bf 109G-5 Werknr. 16281 and flight-tested at Rechlin. Most likely it was also designated as the Bf 109V49. It flew with the code SP # EB and was fitted with an experimental Daimler Benz DB628A engine. From flight reports we can draw the conclusion it was fitted with a standard Bf 109G wing and that it was intended as a test bed for the new DB628A engine rather than as a prototype for a high-al-

A gear collapsed Bf 109 G-10, WNr 151536 'No. 22' of 2./JG 52 at Zeltweg (May 1945).
(Jim Crow collection)

titude fighter. When further work on this engine was abandoned the DB628A was removed and the airframe was later transported to the Daimler Benz factory at Stuttgart for a new DB605 engine installation. In August 1944 it was destroyed in an air raid. Other prototypes of the H version were the Bf 109V50, V54 and V55. As far as known these machines all had the increased wing span.

A small batch of Bf 109H-0 development aircraft was produced for operational testing.

The production version Bf 109H-1 was never built. Series production of the Bf 109H-2 and H-3 powered by a DB605E were planned for Macchi in Italy. However, with the surrender of that country, the production was to be relocated to WNF in Austria. Because of the proximity of advancing Red Army troops this was also never realized. The Bf 109H had a service ceiling of 14,600 m. Very few details are available on the operations of this type and photographs of the Bf 109H are unknown!

Production and production numbers

Of all Bf 109 variants a total of some 33,500 was built by the German aircraft industry.

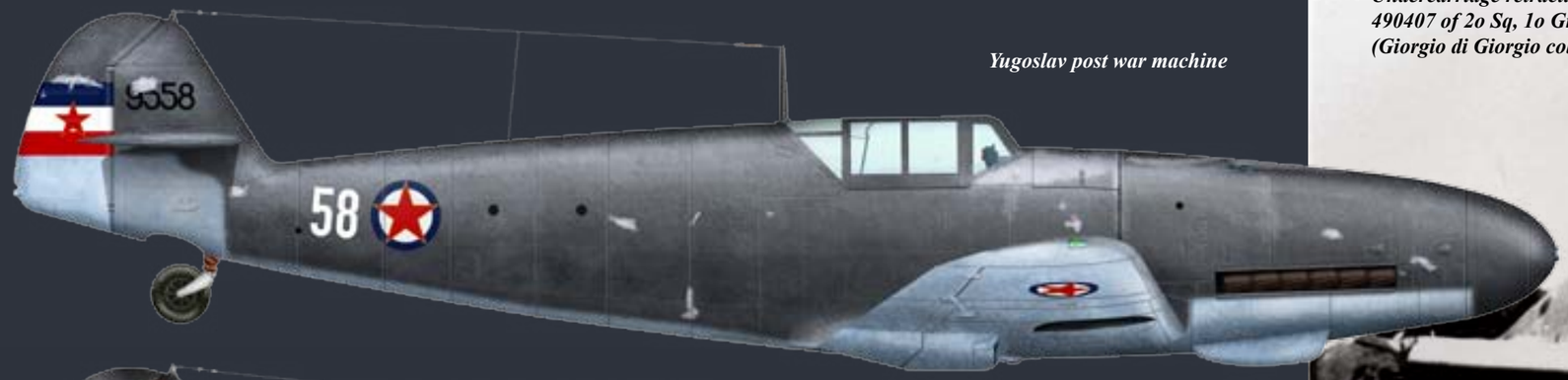
They were not only manufactured in the Messerschmitt works, but also at other production locations. Even when the main production facilities were bombed by Allied air raids, production continued on a large scale. Lusser's team had

Messerschmitt Bf 109 G-6 from 4/ JG 3, Nogent-le-Roy, 1944

Messerschmitt Bf 109 G-6/MW from III/JG 76, Athis, 1944

Messerschmitt Bf 109 G-4/R2 (recce) in adopted camouflage pattern

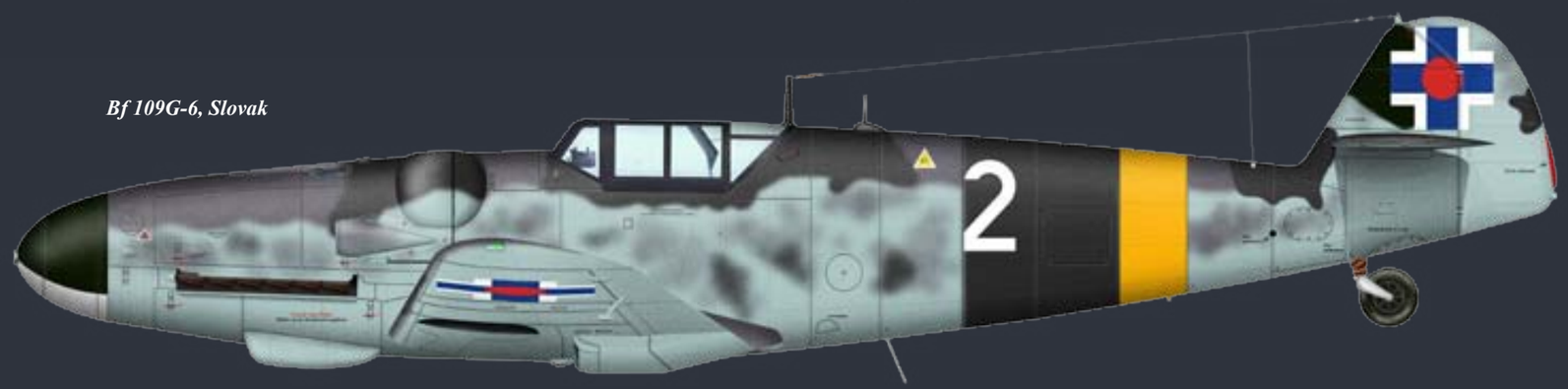
Messerschmnitt Bf 109 G-2 in standard camouflage pattern of RLM greys 74, 75 and 76



Yugoslav post war machine

Bf 109G-5, unknown details

Messerschmitt Bf 109 G-6 from JG 300, one of variation of night fighter scheme



Bf 109G-6, Slovak

Undercarriage retraction tests on Erla-built Bf 109 G-10, WNr 490407 of 2o Sq, 1o Gr of the Italian air force (February 1942). (Giorgio di Giorgio collection)

not only designed the Bf 109 as a fighter with high performances, but also as a fighter that could be easily and economically manufactured in the shortest possible time without any concessions in quality. For the Bf 109 production line a modular system was established that created all separate components before final assembly. This could be easily dispersed when large factories were bombed and using large numbers of forced labourers production continued in very large numbers, even over the last two years of the war. This continued until the very last weeks of the war when the economical structure of the Third Reich collapsed with invading forces occupying more and more territory both from the East and the West!

However, the well-organized and speedy production of the Bf 109 also had its drawbacks. It meant that great structural changes would disrupt the existing production and that might be the reason why some versions were never produced. It might also explain why the final types of Bf 109 still had the narrow-track main undercarriage legs of the earlier versions in spite of many complaints from the pilots flying it. A wider track inwards retracting undercarriage would have disrupted production since this needed a totally new wing construction. One Bf 109F-1 was experimentally fitted with such a wide track undercarriage as the Bf 109V31 (Werknr. 5642) but this was purely to test the undercarriage (and also the new retractable radiator) for the new Me-309 fighter.

At the German capitulation many Bf 109G's and K's were dispersed over various deserted airfields; most of them destroyed. However, a number of the latest versions were captured intact and transport-

Maintenance on Italian Bf 109 G-10 (Giorgio di Giorgio collection)

Bf109G-10 Hungary 613165

Erla built G-10, 15233, black 7

Erla built G-10, 151536

ed to the U.K and the U.S.A. The Soviet Union also captured some Bf 109G's.

Even today a number of these machines can still be seen in various aviation museums!

Production breakdown

Factory, location Up to 1939
1939 1940 1941 1 9 4 2
1943 1944 1945* Totals*
Messerschmitt, Regensburg
203 4 8 6
2,164 6,329 1,241 10,423
Arado, Warnemünde
370
370
Erla, Leipzig
683 875 2,015 4 , 4 7 2
1,018 9,063
Fieseler, Kassel
155
155
W.N.F., Wiener Neustadt
836 1 , 2 9 7
2,200 3,081 541 7,892
Győri Vagon- és Gépgyár, Győr (Hungary)
39 270
309
Ago, Oschersleben
381
381
Totals 1,860 1,540 1 , 8 6 8
2,628 2,658 6,418 1 4 , 1 5 2
2,800 33,984

* Production up to end of March 1945 only.

Foreign users

Bulgaria

As a German ally, the Kingdom of Bulgaria had the Bf 109 in its air force inventory . They began with a small number of Bf 109E's, but later received in total 145 Bf 109G's in the versions G-2, G-6 and G-10.

Croatia

The Croatian Air Force (Hrvatsko bojno zrakoplovstvo) operated with a number of Bf 109s, including the G-2, G-6, G-10 and the K. They fought on the Russian front, but returned later to defend their homeland against Allied fighters.

Czechoslovakia

After the war the Czechoslovakian air force operated some captured Bf 109G's. The Avia works continued to built the Bf 109 fitted with a Junkers Jumo engine as the Avia S-199.

Finland

To replace the ageing Fokker D.XXI, Brewster Buffalo and Morane MS-406 fighters the Finnish government purchased 162 Bf 109G's (48 G-2s, 111 G-6s and three G-8s). They were used in the final phase of the war against the Soviet Union. Finnish pilots found the 'Mersu', as they called their new fighter, an enormous improvement over the older fighter types.

When Finnish ferry pilot had collected the Bf 109G-4 they were all ready to fly but with the Bf 109G-6 it was quite different. The Finnish aircraft were collected at a dispersal field near Anklam in the Northern part of Germany. When Finnish ferry pilots and technicians arrived here to collect their Erla-manufactured Bf 109G-6s they found out to their dismay that most of them were far from airworthy because as the numbers of aircraft

An unmarked WNF built Bf 109 G-10, WNr 612802 at the railway station of Deutsch Brod airbase in Czechoslovakia. Deutsch Brod was later renamed 'Nemecky Brod'. It is the location where part of were JG52 surrendered! Not entire JG 52 surrendered at Deutsch Brod because II./JG 52 surrendered at Neubiberg and Bad Aibling, near München, Bavaria.
(Bernd Barbas collection)

Bf 109 G-10, WNr 613165 'Schwarze 16' in Hungarian markings. All other 109G's are in Luftwaffe markings!
(Jim Crow collection)

A damaged Bf 109 G-10 captured in the CSR
(Zdenek Nowele collection)

Bf 109 G-10/R2 WNr 770269 of NAG14.
(Jim Crow collection)

built increased the quality and quality control decreased. In general the Finnish technicians had to work for some two weeks on each aircraft to make it safe enough for its ferry flight to Finland!

Hungary

Operating together with Luftwaffe units, the Royal Hungarian air force had almost 500 Bf 109G's of all sub-types.

Israel

During their Independence War in the late forties, the Israeli air force operated a number of Junkers Jumo engined Bf 109G's built by Avia in Czechoslovakia as Avia S.199.

Italy

The Regia Aeronautica had a small number of Bf 109G-6s. The Italian Social Republic, or Aeronautica Nazionale Republicana was closely related to the German Luftwaffe operating in Northern Italy.. They operated 300 Bf 109G-6/-10/-14s and two G-12s; three K-4s were also received.

Japan

During the war Japan received new equipment and documents from Germany by submarine. At least two Bf 109Gs must have been crated for export to Japan who had earlier already received a small number of Bf 109Es. These were actively tested and there is photographic evidence showing the Emil in Japanese marking. However, the final fate of the Japanese Bf 109G is unknown. It is not even certain they ever reached Japan.

Romania

The Romanian air force had at least 235 Bf 109G's of various sub-types. Another 75 Bf 109G-6's were built by IAR. A few remaining Bf 109G's were kept operational immediately after the war for a short time.

Slovak Republic

The short-lived Slovak Republic used 30 Bf 109G6s under Luftwaffe command. Some were captured when Romanian and Russian troops entered Slovakia and used against the Germans.

Spain

Apart from some earlier models already in operation, the Spanish air force also wanted to have the G-model. There were plans for licence construction by Hispano-Suiza, but when these were finally realized the war was over. Hispano-Suiza continued to produce the Bf 109G, but with a different engine. Further, some Spanish pilots fought as volunteer on the Russian front with the Bf 109G-4 and G-6 at the German JG 27.

Switzerland

To defend its neutrality the Swiss air force already flew in the early stage of the war with the Bf 109E.

An Erla Bf 109 G-10/R6, WNr 150816 on the scrap heap with the swastika symbol cut out. This plane of II./JG 300, was found by American troops at Bad Langensalz in February 1945. For the G-10, Rüstsatz 6 was the PKS 12, an all-weather device.
(Jim Crow collection)

A captured WNF built Bf 109G-10/U4 in the U.S.A. with the registration T2-123. Other sources have incorrectly claimed this as being a Bf 109K-4

R.A.F. technicians working on a captured Bf 109 G-14 (or G-6MW) test flown at 1426 Sq. 'Enemy Aircraft Flight' at Collyweston in the U.K.

Rare colour shot of Bf 109 G-14 'Gelbe 5' of 1./JG. 53 at the Henschel Aero Werke at Kassel, taken in May 1945
(NARA)

They were later replaced by the Bf 109G-6. A total of 14 was supplied.

Yugoslavia

After the war Yugoslavia used for a short time a few ex-Croatian and ex-Bulgarian Bf 109Gs. A Messerschmitt Bf 109G-4 in Yugoslavian air force markings is currently on display in the Air Force museum at Belgrade.

After the war

The Avia S-199

After the war the Avia works in Czechoslovakia used parts, plans and left-overs from Luftwaffe aircraft production to manufacture the Bf 109G as the Avia S-199. By that time the Daimler Benz DB 605 was no longer available. As an alternative the Junkers Jumo 211F from the Heinkel He-111 bomber was used. In total 603 were built and a number was exported to Israel, who badly needed fighter aircraft for their Independence War. In the Czechoslovakian air force the S-199 was far from popular and pilots called it the Mezek or Mule. The S-199 had even more handling problems than the Bf 109G and suffered a high accident rate with many landing accidents. The S-199 also was far from popular in the Israeli air force, although pilots managed to score some kills in aerial combat with the Egyptian air force!

The Hispano-Suiza Buchon

Hispano-Suiza had already planned the licence construction of the Bf 109G during the war. When the war ended, the production of the Daimler Benz DB 605 also ended. As an alternative, Spanish built Bf 109G airframes were fitted with a Hispano-Suiza 12Z-17 engine as the HA-1109-J1L. A small series of 25 was built.

The next version was the HA-1109-K1 with the original German propeller replaced by a De Havilland Hydromatic. It was armed with two 20 mm cannons and underwing rockets. These were modified from the earlier J1L version, that never was operational.

The improved HA-1112-K1L "Tripala" followed in 1951. In total 65 were built including conversion of the 25 earlier HA-1109s.

A HA-1109-K1L served as a prototype for the next version, the HA-1112-K1L fitted with a Rolls Royce Merlin engine.

The final variant was the Merlin powered HA-1112-M1L Buchon. Total production of this last version was 175.

So the Bf 109 story ended as it had started: the first Bf 109 was powered by a British engine; the Rolls Royce Kestrel and the last one also had a British engine: the Rolls Royce Merlin!

The Buchon was used by the Spanish air force until it was phased out in the sixties. However, this was not their final appearance! A number of Buchons was re-painted in a Luftwaffe colour scheme to fight again in the Battle of Britain; now in the famous movie alongside the CASA 1.111 bomber (a He-111 also fitted with Rolls Royce Merlin engines)!! After their participation in the movie many Buchons found there way to collectors instead of being scrapped and some are still flying.....

A Bf 109 G-14 fuselage being trucked away by U.S. soldiers. (Ron Dupas collection)

Messserschmitt built Bf 109 G-14AS, WNr 786316 'Weisse 4'. (Jim Crow collection)

A Bf 109G-14AS captured by the Polish RAF 318 Squadron in Italy. Photo was taken in 1946! Before capture it was "Schwarze 4" of 15. (Kroat.)/JG 52

A Bf 109G-14/U4 (or G-6/MW/U4), WNr 413598 at Farnborough with R.A.F. serial VD358. The photo was taken in November 1945. Text on propeller blade is 'Do not turn'. VD364 was also a captured Bf 109G

Bf 109G-14/U4 (or G-6/MW/U4), WNr 413598 as found at Gilze-Rijen airbase in the Netherlands in February 1945. It has already been fitted with R.A.F. roundels, but carries a white 'P' on the fuselage instead of the later R.A.F. serial. To prevent confusion, it also carried the black-and white invasion strips below the wings.

CJ # MG was a Bf 109G-12 two-seater. We see it here before it was assigned to an operational training group

A Ha-1112 M1L Buchon still flying! Photo was taken on 3 September 2011 at Duxford. (Photo Nico Braas)

The same Bf 109G-14/U4 (or G-6/MW/U4), WNr 413598 as found at Gilze-Rijen airbase in the Netherlands in February 1945. It has already been fitted with R.A.F. roundels, but still carries the earlier white 'P' on the fuselage

Avia S-199 of the Israeli air force as exhibited at Beersheba-Hatzerim