

1/48 SCALE PLASTIC KIT

ProfiPACK
edition

#8208



INTRO

The first pages of history for the famous Zerstörer Bf 110 were written at the end of 1934, when C-Amt RLM (the technical branch of the Reich's Air Ministry) issued a specification for a two seat, twin engined aircraft to fulfill a need within the Kampferstörer category. Submitted proposals came from Focke-Wulf (Fw 57), Henschel (Hs 124) and BFW (Messerschmitt Bf 110). In the spring of 1935, the RLM changed its thinking on the spec, and cancelled the universal Kampferstörer category in favor of two specific types, the Schnellbomber and the Zerstörer. The new concept of a heavy fighter of the RLM were best satisfied by the Messerschmitt design, which wasn't really dictated as much by the original specifications. The first prototype, the Bf 110 V1, first flew May 12th, 1936, and the modified second prototype V2 was submitted to the Erprobungsstelle in Rechlin on January 14th, 1937. Four development aircraft, A-01 to A-04, powered by JUMO 210Da engines, were delivered at the beginning of 1938. A production run of 45 Bf 110Bs began in July, powered by JUMO 210Ga engines, delivering some 500kW (680hp). At the end of 1938, the production line for the high performance DB 601 finally got going, and these were mounted into the first major Bf 110 version, the Bf 110C. The Bf 110C, as was the case with the Bf 110B, was armed with two MG FF cannon, mounted in the fuselage below the cockpit floor, four MG 17 machine guns mounted in the nose and one rear firing MG 15 machine gun manned by the gunner/radio operator. There was a crew of two. The Luftwaffe received a total of 169 Bf 110Cs by September 1939. The first combat experience of the type in Norway and France uncovered a small operational radius, unsuitable for an escort fighter. The first attempt to remedy the shortcoming came in the form of a large, underfuselage conformal type external fuel tank, called the Dackelbauch. The Bf 110C-3, adapted to carry this tank, were redesignated D-0. Results were not entirely satisfactory with the D version, and so there was a reconstruction of the fuel system, after which aircraft of the D version carried two drop tanks under the wings, and a small oil tank under the fuselage. The Bf 110D also standardized a longer fuselage, by way of an extension at the rear carrying a life raft and other emergency survival gear. This was a feature also evident on some subsequent Bf 110Es, which were equipped with bomb racks under the fuselage and wings. The majority of Bf 110Es were powered by the DB 601N engines. The following Bf 110F received the DB 601F engines housed in reshaped nacelles, with newer, more rounded spinners, aerodynamic features taken from the Bf 109F. Upgrading efforts were noted in the armament as well, where the MG FF were replaced by MG 151s. Significant changes came with the Bf 110G, powered by new DB 605 engines. The rear firing MG 81Z double gun appeared on the G-2, and with the G-4 came the replacement of four forward firing machine guns with two 30mm MK 108 cannon. The G-4 also saw larger rudders mounted. The Bf 110 went through not only technical changes throughout its career, but also through a development of its operational use. It entered the war as a heavy escort and attack fighter. By the time of the Battle of Britain, it became apparent that the aircraft, in the role of escort fighter, had been pushing the envelope of its capabilities. On the contrary, as a defensive weapon against British bombers, the Bf 110 made an extremely good showing of itself, and remained a deadly foe through to the end of the war. The placement of RAF bombing operations within nighttime hours from 1941 brought the Bf 110 into the realm of nightfighting on the Western Front. On the Eastern Front, they excelled as fast fighter bombers. Their earlier role as a day attack fighter was still fulfilled not only on the Eastern Front (where they were employed throughout the war successfully even as the originally envisioned escort fighter), but also on the Western Front into the depths of the summer of 1944, where the role was abandoned primarily, and finally, due to the effectiveness of American fighter escorts. As a nightfighter in the G-4 version, thanks to a heavy forward firing armament and radar, they soldiered on literally until the very end of the war. As such, it was the nightfighter role that would prove to be the most significant for the Bf 110 during the course of the Second World War.

ÚVODEM

Historie slavného Zerstöreru Bf 110 se začala psát na konci roku 1934, kdy C-Amt RLM (Technický úřad Říšského ministerstva letectví) vydal specifikace pro dvoumístné dvoumotorové letouny kategorie Kampferstörer. Do konkurzu vstoupily firmy Focke-Wulf (Fw 57), Henschel (Hs 124) a BFW (Messerschmitt Bf 110). Na jaře 1935 RLM své názory přehodnotilo, univerzální kategorii Kampferstörer zrušilo ve prospěch dvou specializovaných kategorií Schnellbomber a Zerstörer. Požadavkům RLM na těžký stíhací stroj Zerstörer nejlépe vyhovovala Messerschmittova konstrukce, která se příliš nevázala na původní zadání. První prototyp Bf 110 V1 byl zalétán 12.5.1936, modifikovaný druhý prototyp V2 byl do Erprobungsstelle in Rechlinu předán 14.1.1937. Čtyři stroje zkušební série A-01 až A-04, poháněné motorem JUMO 210Da, byly dodány začátkem roku 1938, v červenci pak začala výroba 45 kusů série Bf 110B, poháněné motory JUMO 210Ga o max.výkonu 500kW (680 k). Na konci roku 1938 se konečně rozběhla výroba výkonných motorů DB 601, které byly montovány do první velkosériové verze C. Verze C, stejně jako předchozí B, měla výzbroj tvořenou dvěma kanóny MG FF, montovanými do trupu pod podlahou prostoru osádky, čtyřmi kulomety MG 17 lafetovanými v nose letounu, a jedním vzad střelícím kulometem MG 15, obsluhovaným radistou/střelcem. Osádka byla dvoučlenná. Do září 1939 dostala Luftwaffe 169 strojů Bf 110C. Již první bojové zkušenosti z Norska a Francie ukázaly na malý operační dolet, nevyhovující pro doprovodné stíhačky. Prvním řešením tohoto problému byla známá velká podtrupová přídavná nádrž zvaná Dackelbauch. Stroje verze C-3, adaptované k nesení této nádrže, byly přeznačeny na D-0. Výsledky nebyly zcela uspokojivé, u verze D proto došlo k rekonstrukci palivové soustavy, po které stroje řady D nesly dvě přídavné nádrže pod křídly a malou přídavnou olejovou nádrž pod trupem. Stroje Bf 110D měly také standardně prodloužený trup, v nástavci za ocasem byl uložen záchranný člun a další vybavení pro přežití posádky při nouzovém přistání. Prodloužené trupy zůstaly i na některých sériích následující verze Bf 110E, která byla vybavena pumovými závěsníky pod trupem a pod křídlem. Většina Bf 110E byla poháněna motory DB 601N. Následující verze Bf 110F dostala nové motory DB 601F v nově tvarovaných kapotách, s novými, mohutnějšími vrtulovými kužely - aerodynamika stroje byla zjemněna ve stylu Bf 109F. Modernizaci prošla i výzbroj, staré kanóny MG FF byly nahrazeny modernějšími MG 151. Významnou změnu přinesly stroje řady Bf 110G, poháněné novými výkonnými motory DB 605. Od verze G-2 byl instalován vzad střelící dvojkulomet MG 81Z, u verze G-4 pak byly čtyři kulomety v přední nahrazeny dvěma 30 mm kanóny MK 108. U G-4 byly také zvětšeny směrovky. Bf 110 prošel během své válečné služby nejen řadou technických změn, k významným změnám došlo také v jeho operačním nasazení. Do války typ vstupoval jako těžký doprovodný a přepadový stíhač. Již v době Bitvy o Anglii bylo zřejmé, že role doprovodné stíhačky je na hranicích možností stroje. Naopak v obranných bojích proti britským bombardérům se Bf 110 velmi osvědčily a jako přepadový těžký stíhač byl Bf 110 smrtelně nebezpečným protivníkem až do konce války. Vzhledem k přesunu bombardovacích operací RAF do nočních hodin pak od roku 1941 Bf 110 přecházely na západě do role nočních stíhaček. Na východní frontě se zase významně prosadily jako rychlé stíhací bombardéry. Svoji původní úlohu těžké denní přepadové stíhačky přesto plnily dál jak na východě (zde po celou válku úspěšně bojovaly i ve své původní roli doprovodných stíhaček), tak na západě až hluboko do léta roku 1944, kdy jí pro těžké ztráty, způsobované především americkými doprovodnými stíhačkami, definitivně opustily. Jako noční stíhačky ve verzi G-4, díky silné hlavňové výzbroji a instalovanému radaru, ovšem efektivně bojovaly až do samotného konce války. Noční stíhání se tak nakonec stalo jednou z nejdůležitějších činností Bf 110 ve 2.světové válce.

ATTENTION



UPOZORNĚNÍ



ACHTUNG



ATTENTION



注意



Carefully read instruction sheet before assembling. When you use glue or paint, do not use near open flame and use in well ventilated room. Keep out of reach of small children. Children must not be allowed to suck any part, or pull vinyl bag over the head.



Před započítím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidla pracujte v dobře větrané místnosti. Lepidla ani barvy nepoužívejte v blízkosti otevřeného ohně. Model není určen malým dětem, mohlo by dojít k požití drobných dílů.

INSTRUCTION SIGNS

* INSTR. SYMBOLS

* INSTRUKTION SINNBILDEN

* SYMBOLES

* 記号の説明

OPTIONAL
VOLBABEND
OHNOUTSAND
BROUSITOPEN HOLE
VYVRTAT OTVORSYMETRICAL ASSEMBLY
SYMETRICKÁ MONTÁŽREMOVE
ODŘÍZNOUTREVERSE SIDE
OTOČITAPPLY EDUARD MASK
AND PAINT
POUŽÍT EDUARD MASK
NABARVIT

PARTS



DÍLY



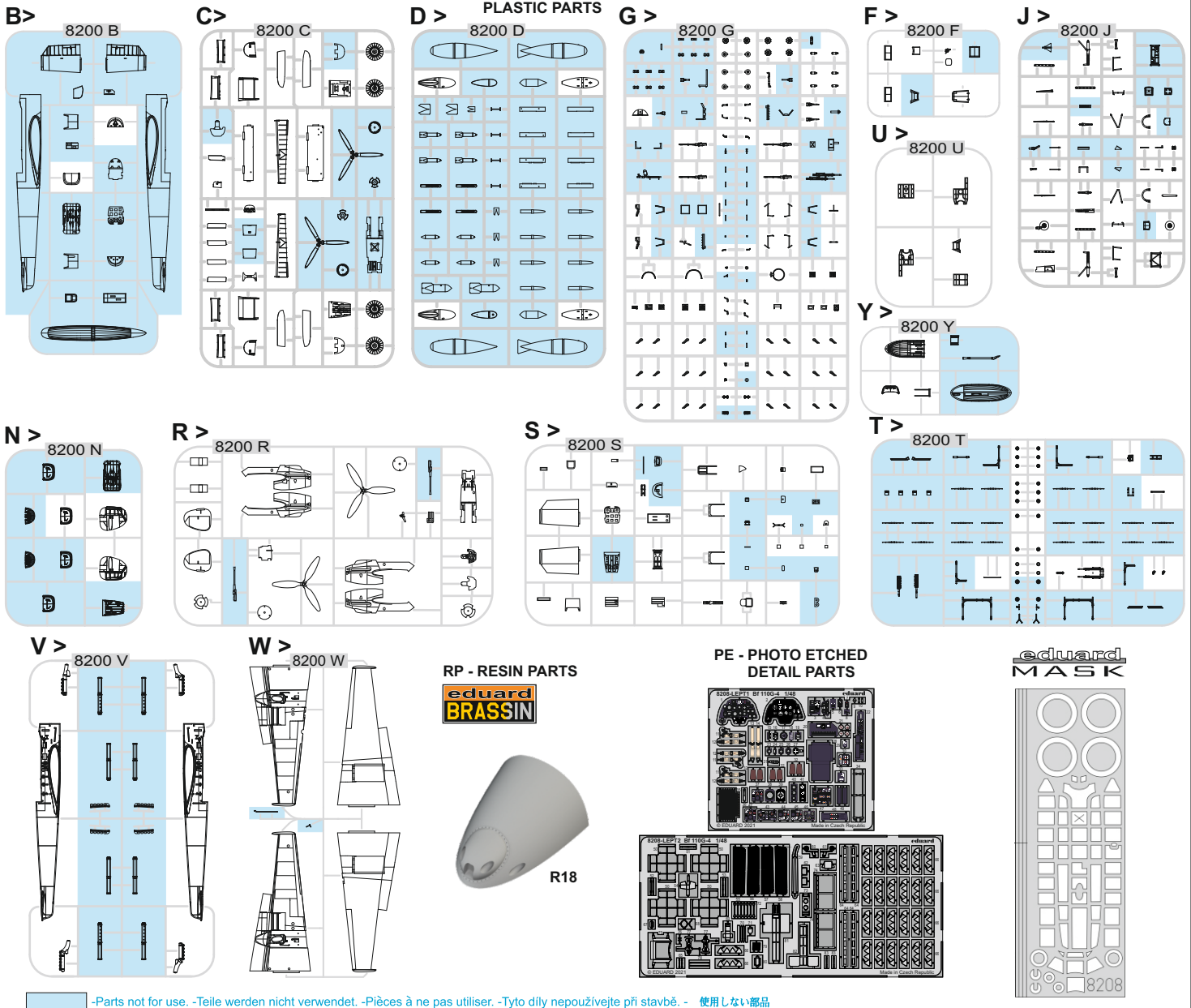
TEILE



PIÈCES



部品



COLOURS



BARVY



FARBEN



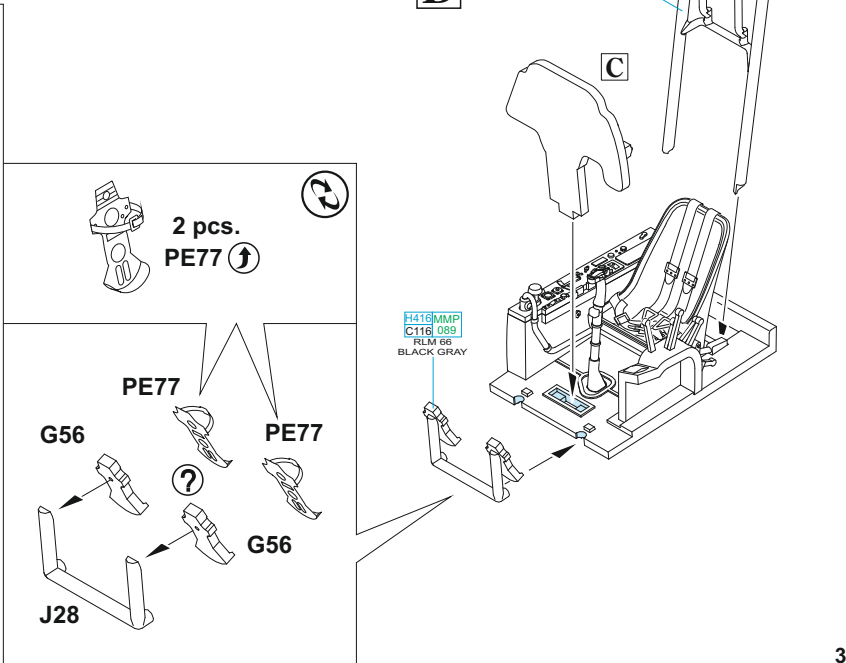
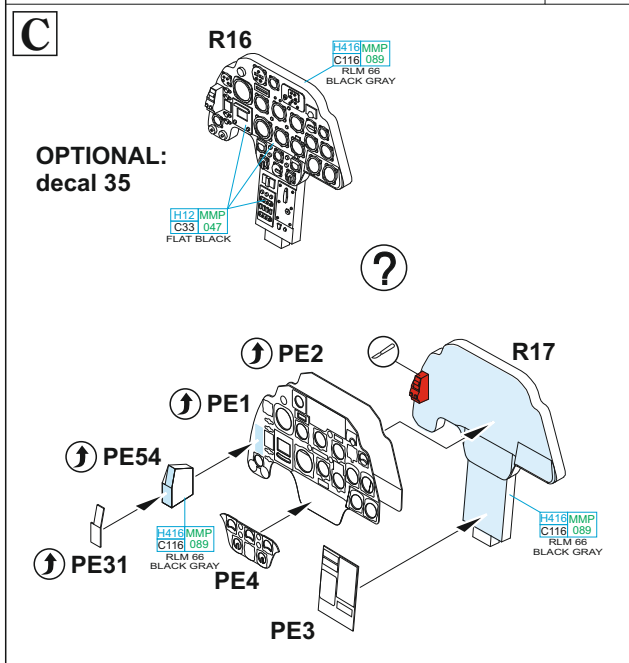
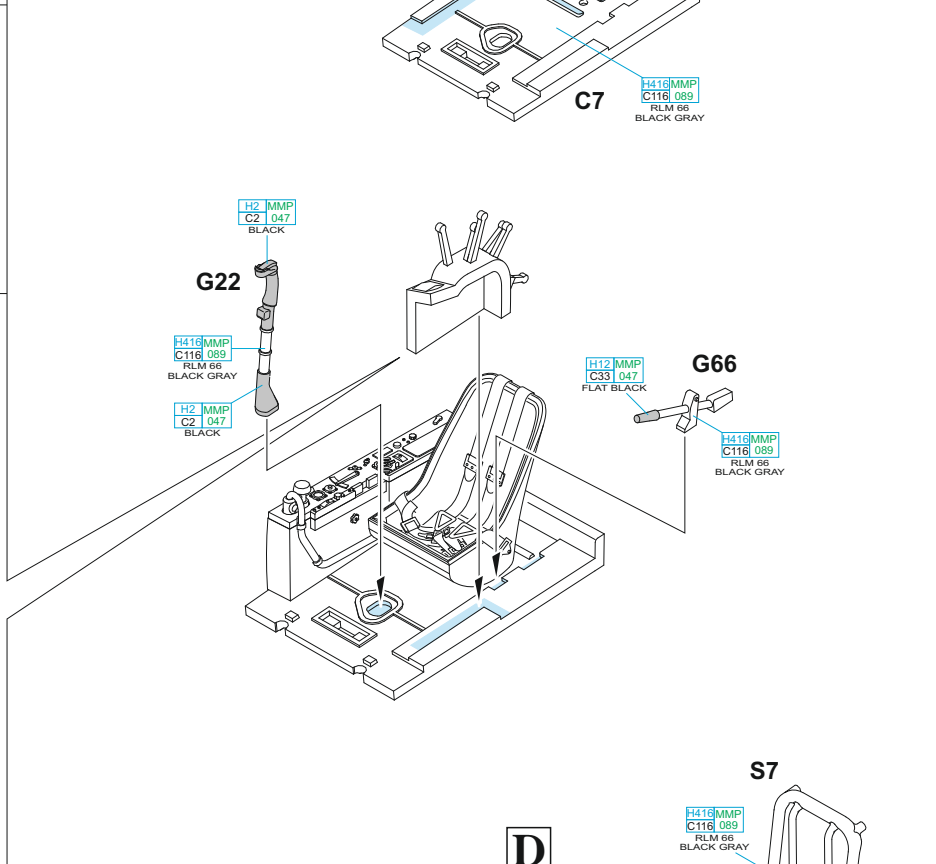
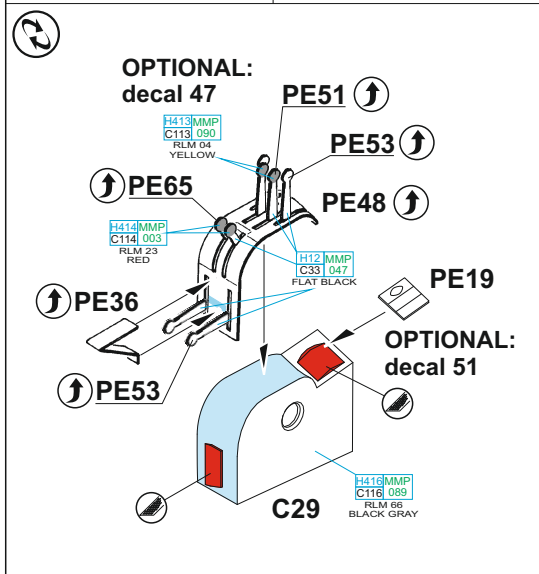
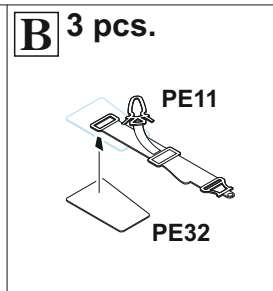
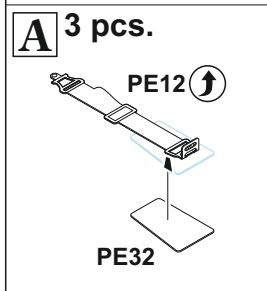
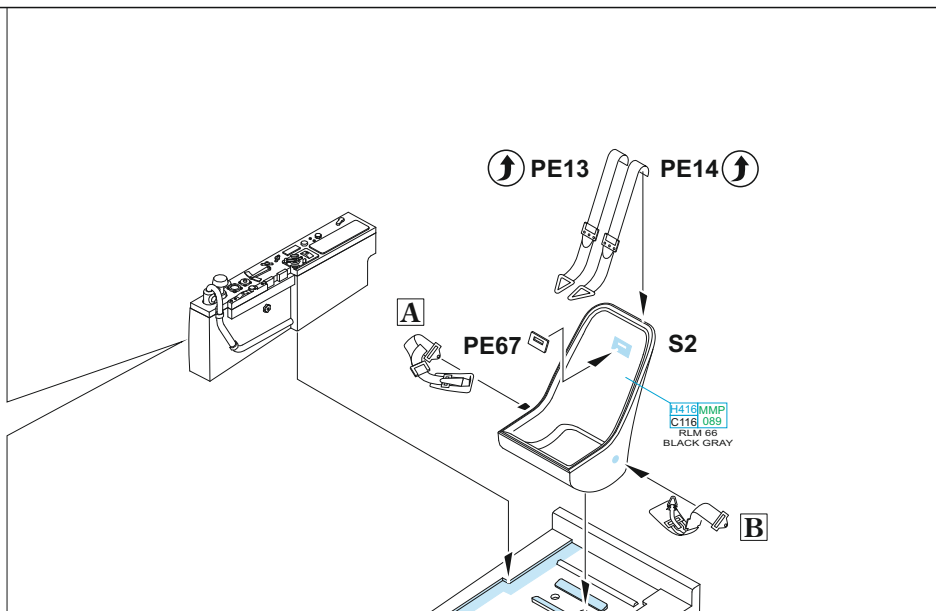
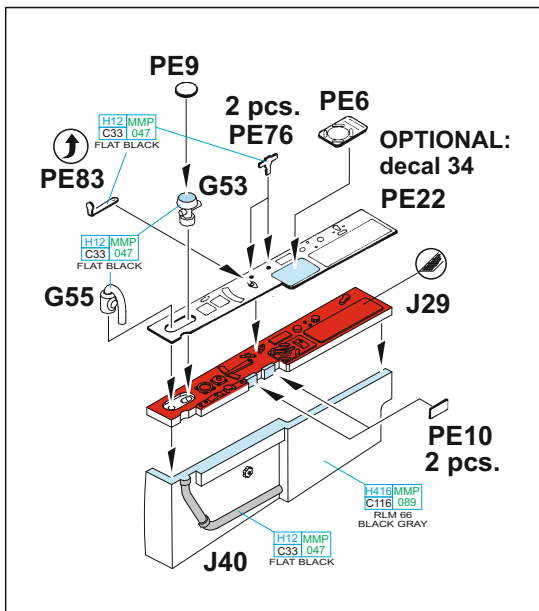
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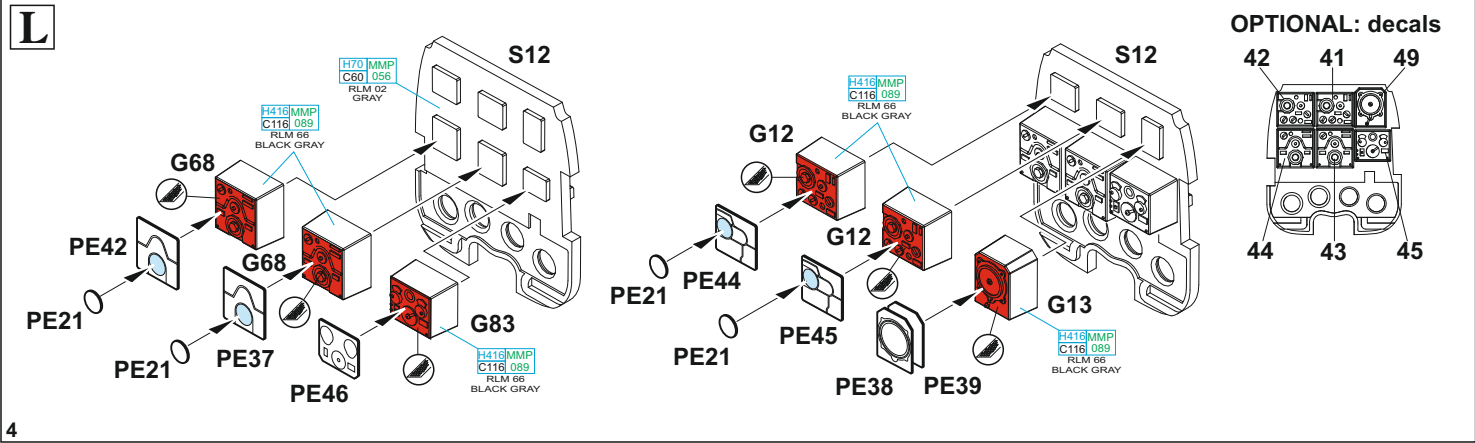
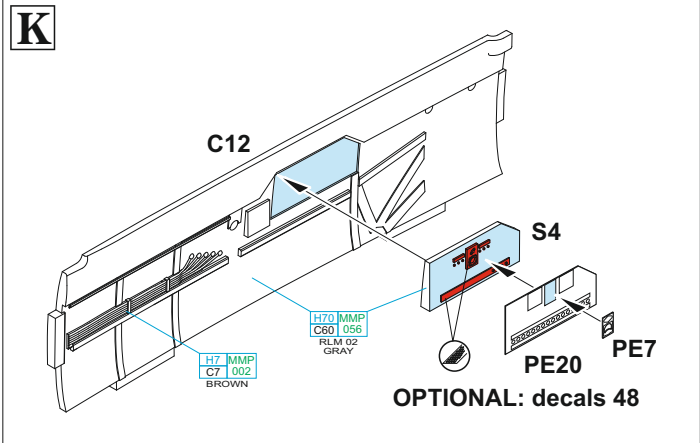
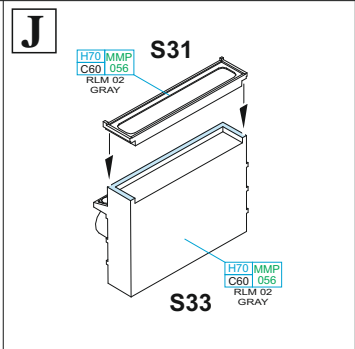
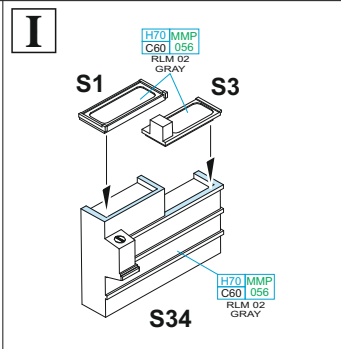
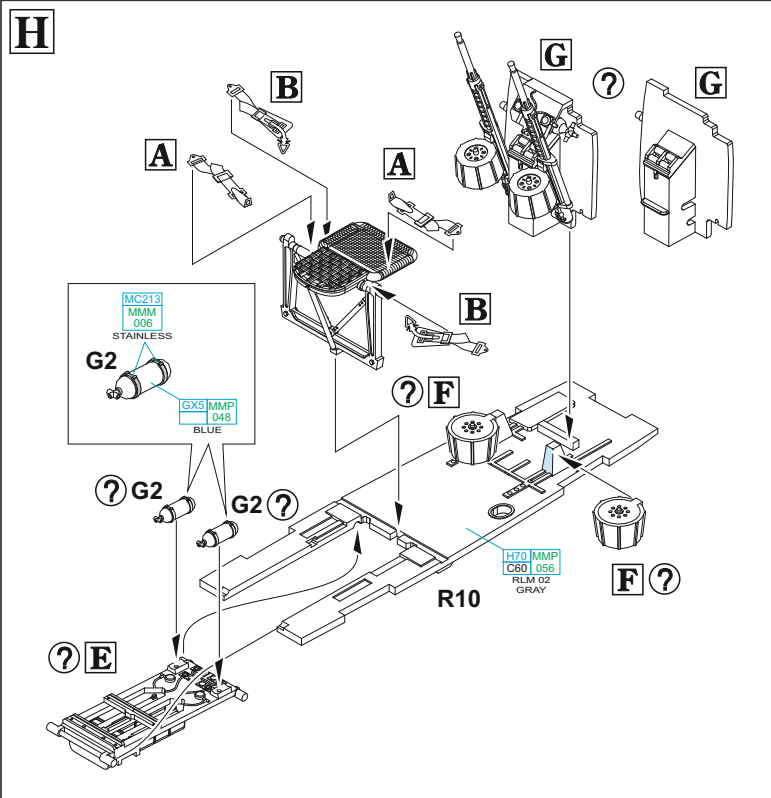
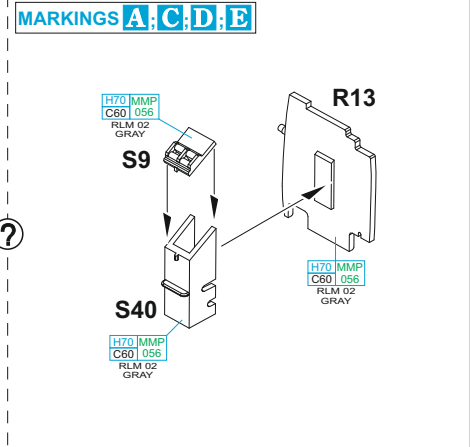
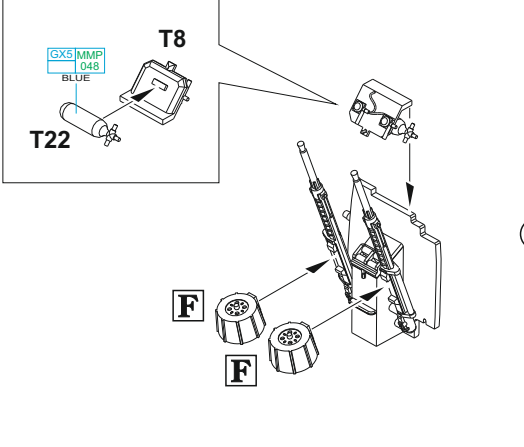
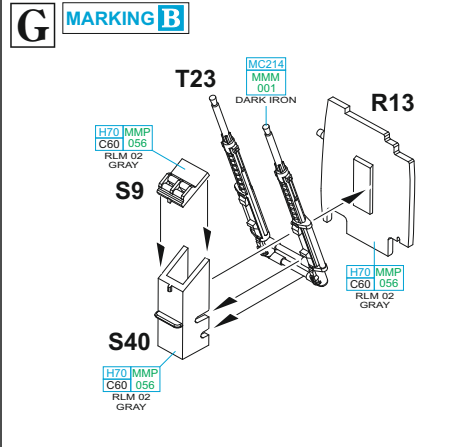
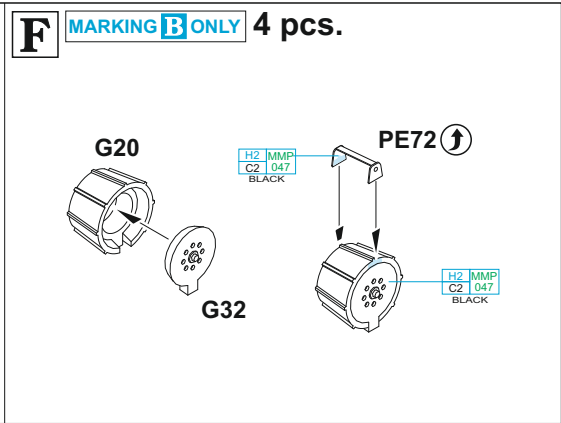
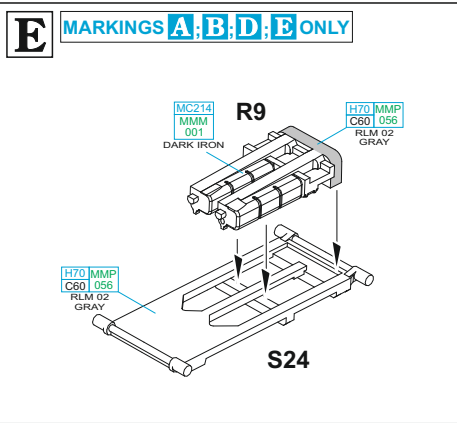
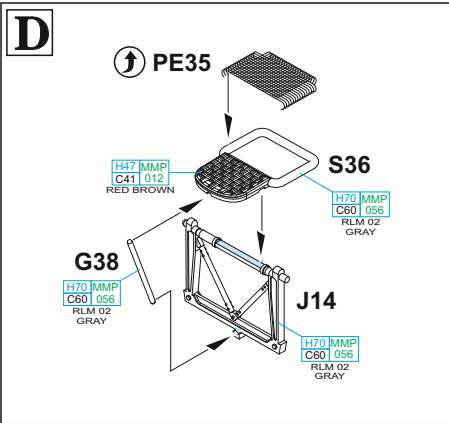


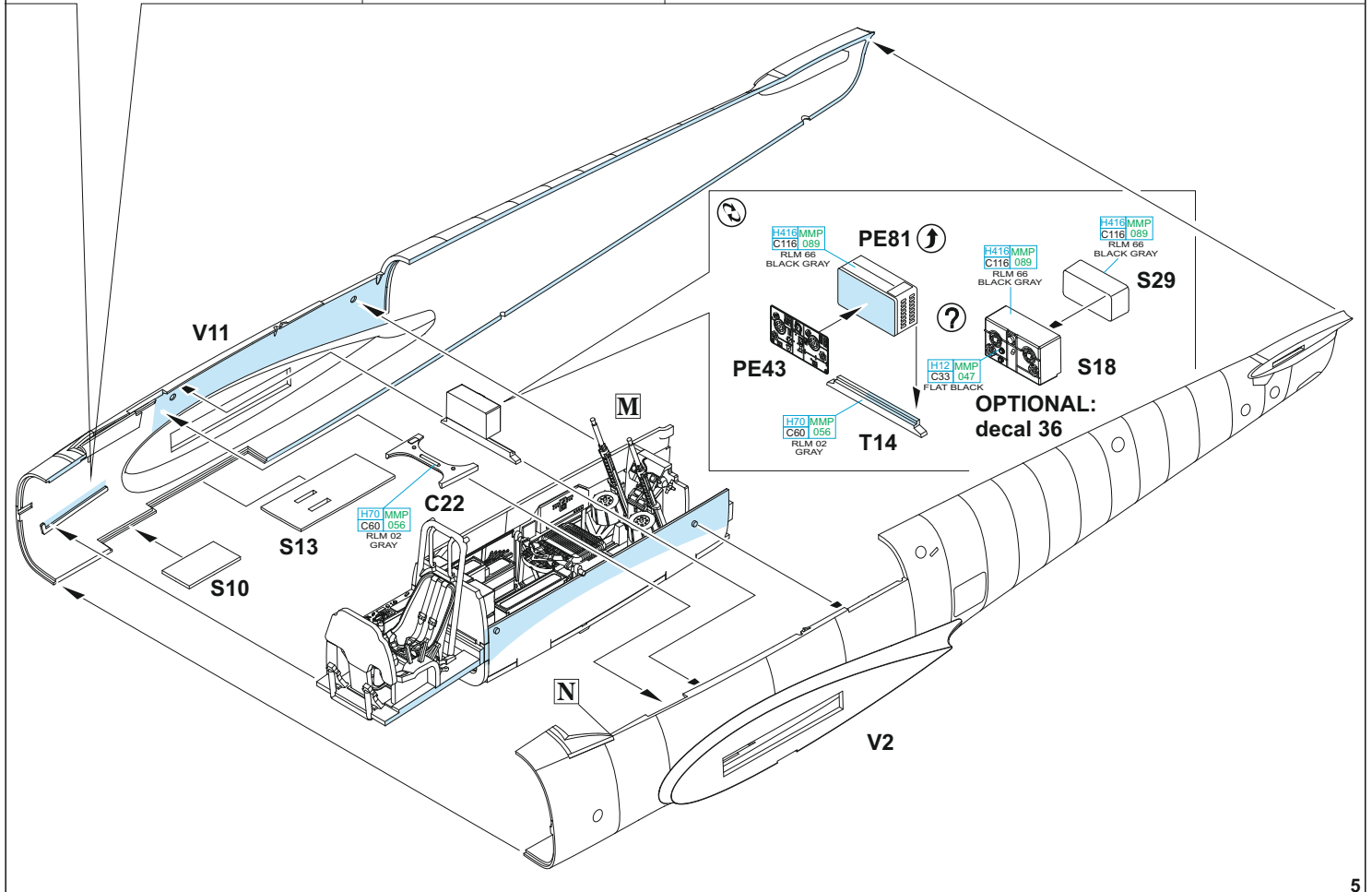
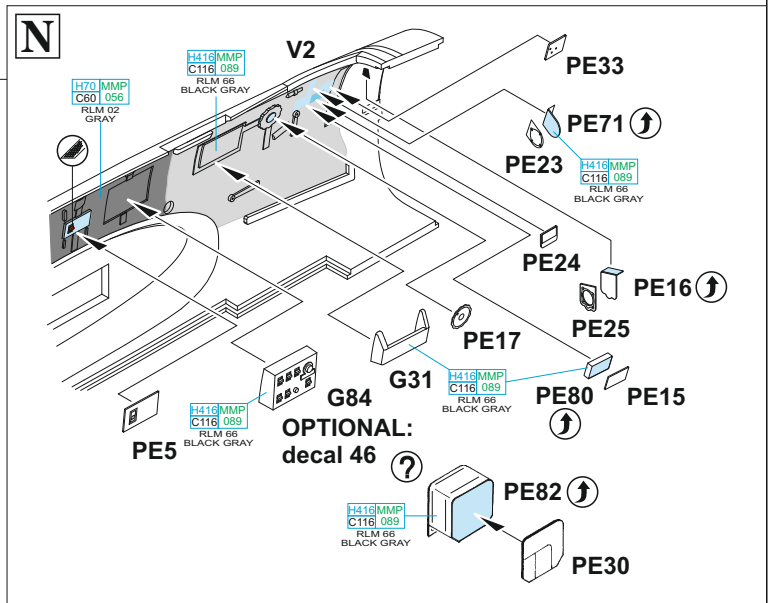
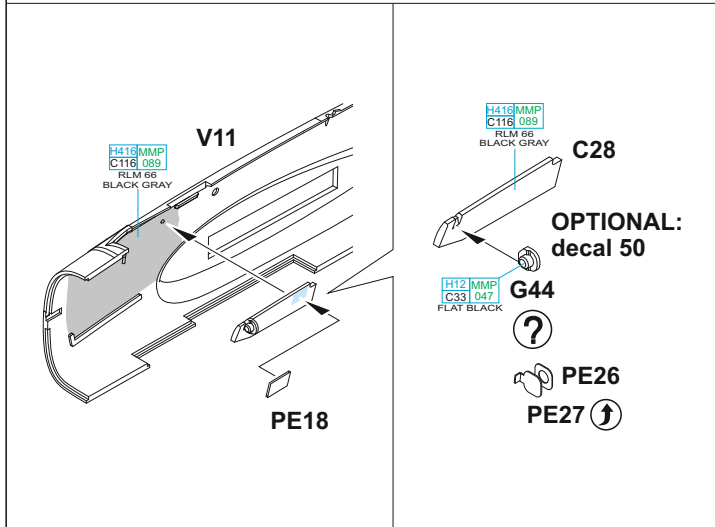
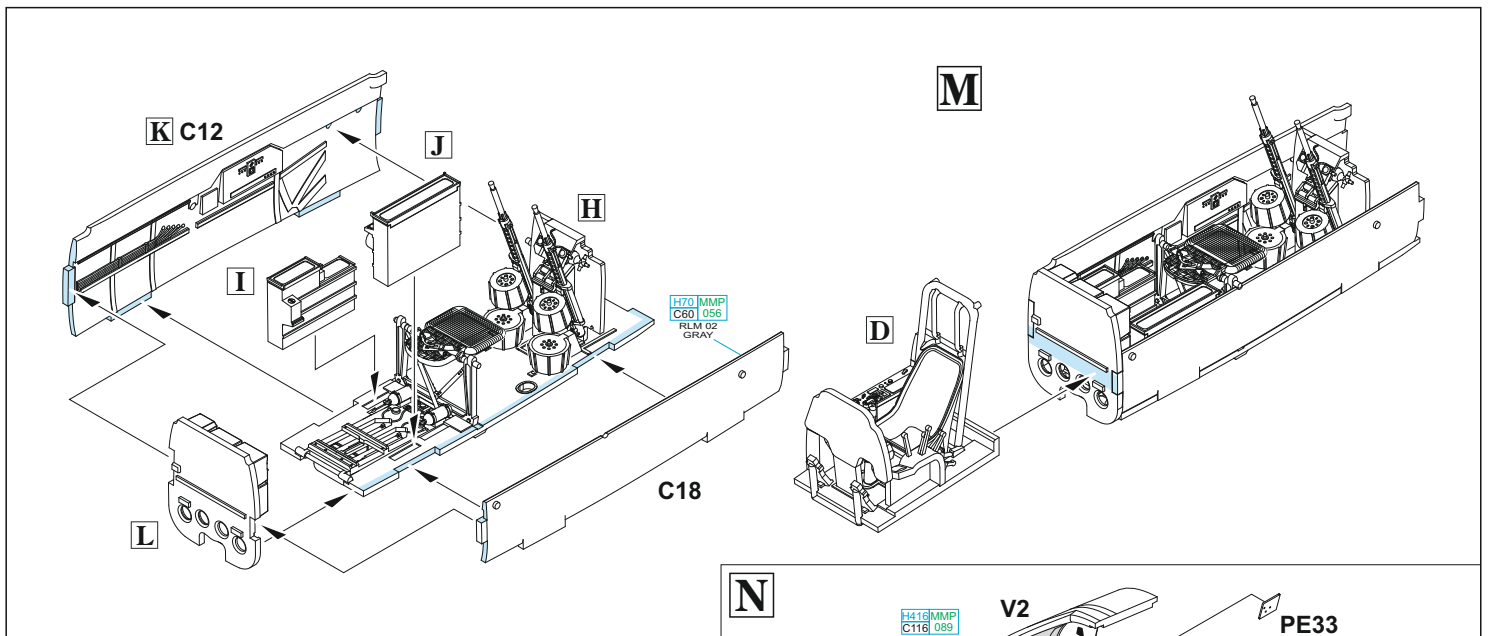
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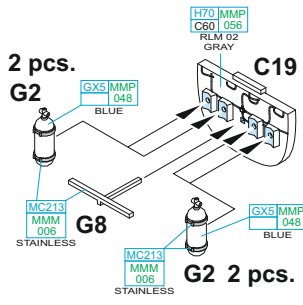
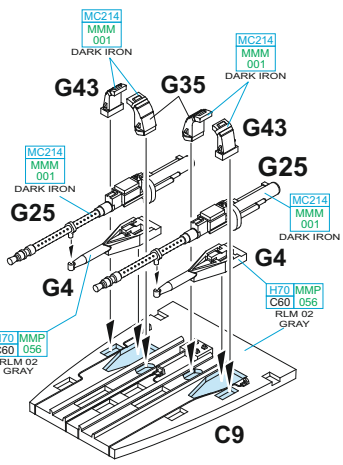
GSI Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H2	C2	MMP-047	BLACK
H7	C7	MMP-002	BROWN
H11	C62	MMP-001	FLAT WHITE
H12	C33	MMP-047	FLAT BLACK
H37	C43		WOOD BROWN
H47	C41	MMP-012	RED BROWN
H65	C18	MMP-088	RLM70 BLACK GREEN
H68	C36	MMP-049	RLM74 DARK GRAY
H69	C37	MMP-050	RLM75 GRAY
H70	C60	MMP-056	RLM02 GRAY
H77	C137	MMP-040	TIRE BLACK

GSI Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H306	C306	MMP-118	MEDIUM GRAY
H320	C320	MMP-112	DARK GREEN
H413	C113	MMP-090	RLM04 YELLOW
H414	C114		RLM23 RED
H416	C116	MMP-089	RLM66 BLACK GRAY
H417	C117	MMP-051	RLM76 LIGHT BLUE
Mr.METAL COLOR		METALLICS	
MC213		MMM-006	STAINLESS
MC214		MMM-001	DARK IRON
Mr.COLOR GX		METALLICS	
GX05			SUSIE BLUE

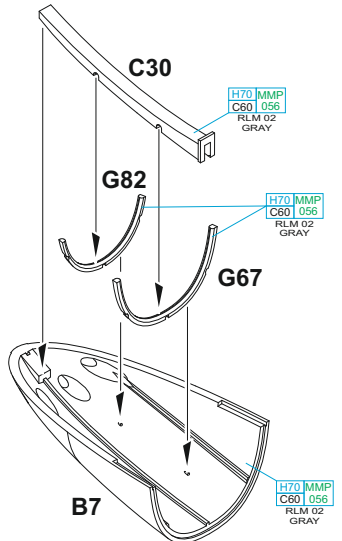




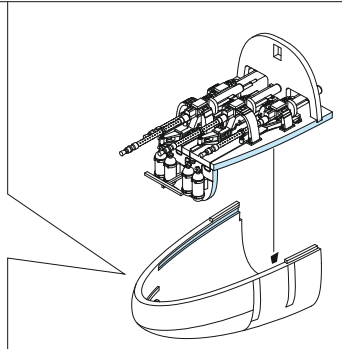
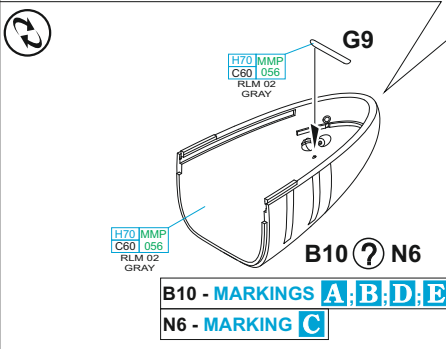
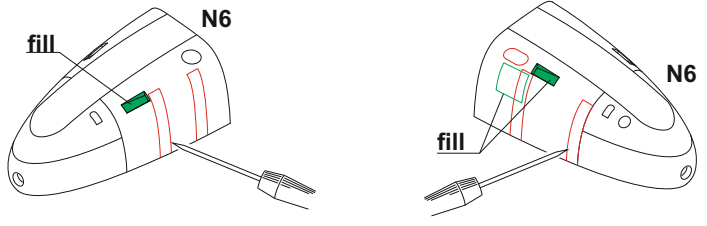




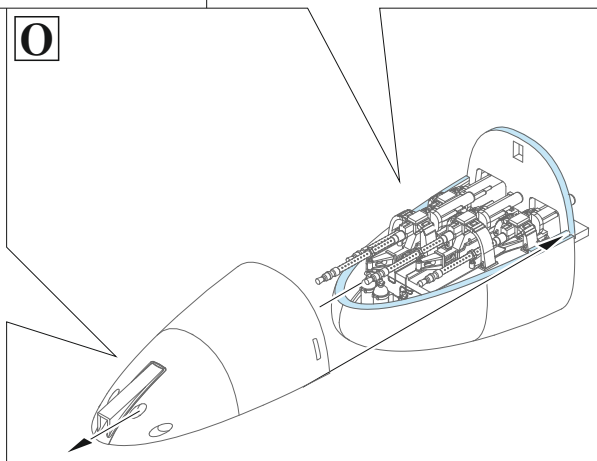
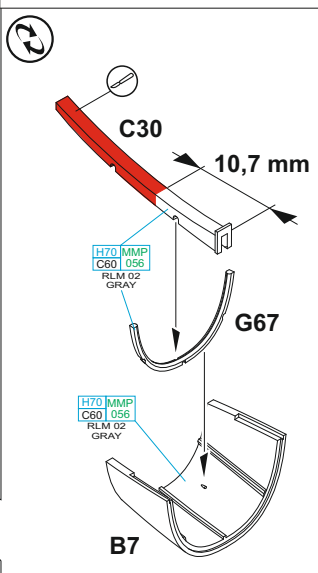
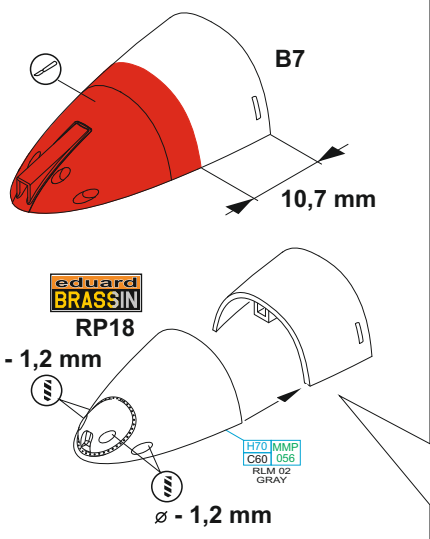
MARKINGS A, E

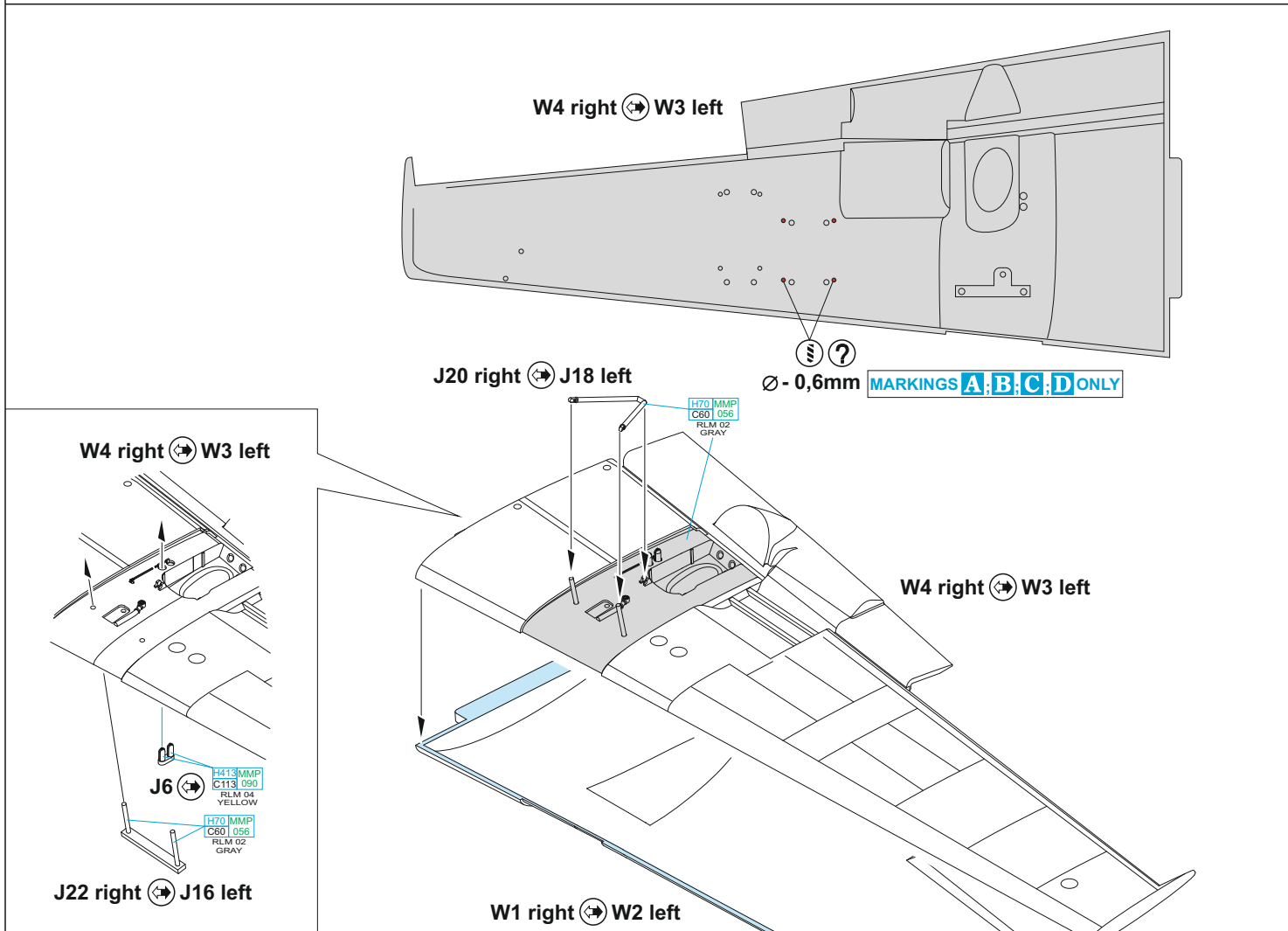
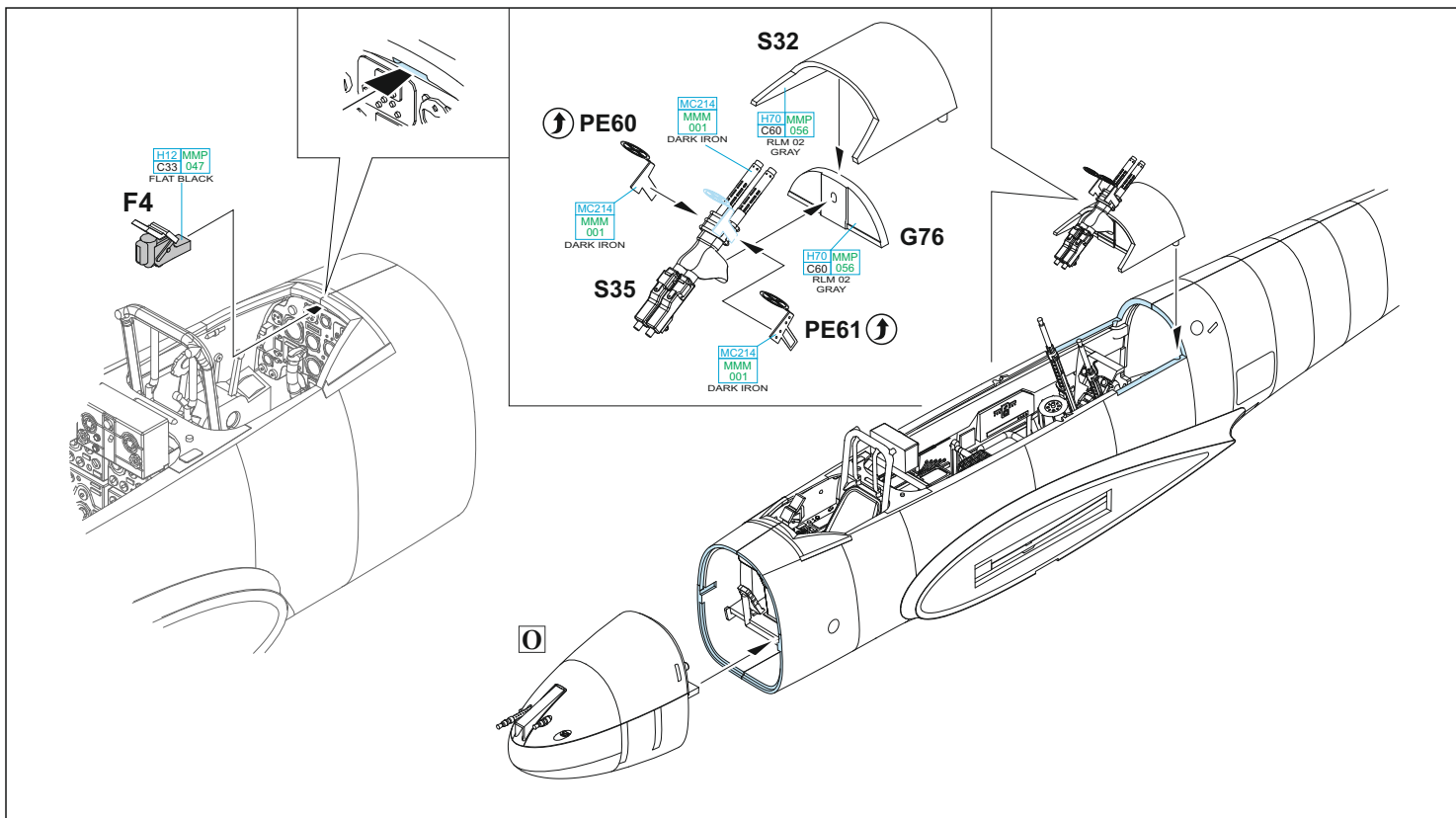


MARKING C ONLY SCRIBE THE LINES ON THE SAME POSITION LIKE ON THE PART B10



MARKINGS B, C, D

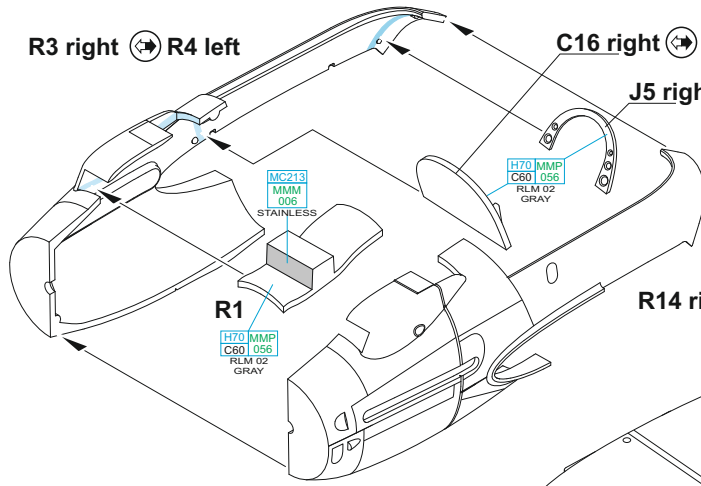




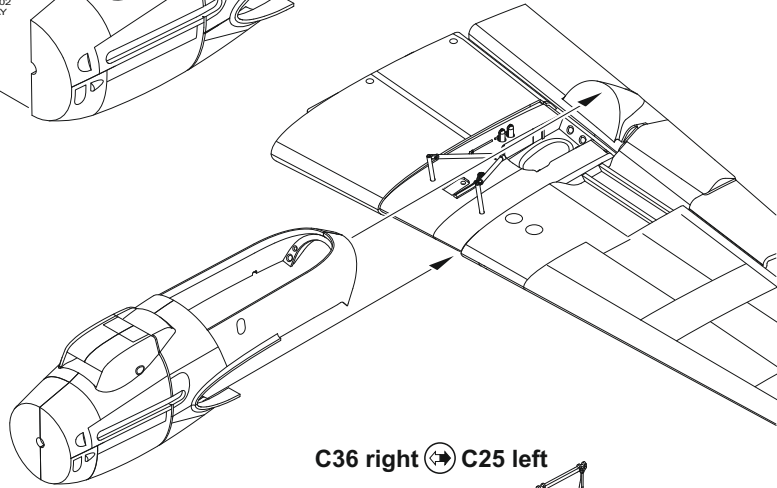
R3 right ↔ R4 left

C16 right ↔ C24 left

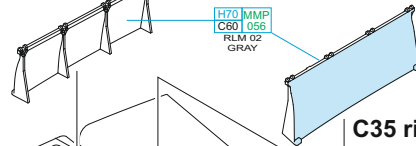
J5 right ↔ J11 left



R14 right ↔ R15 left

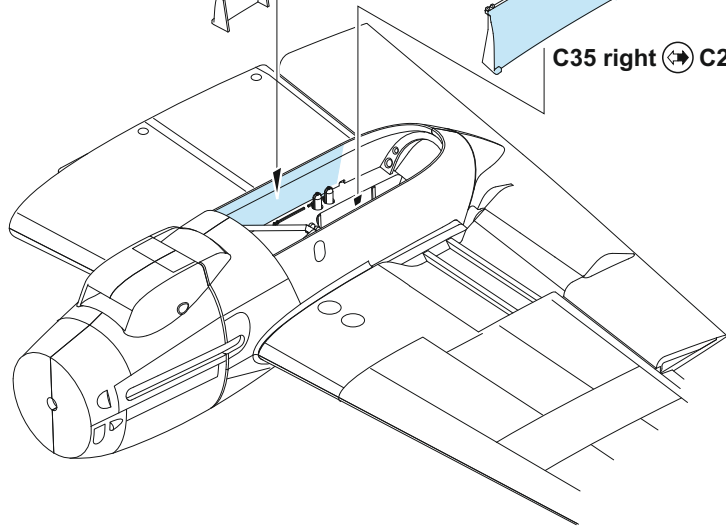


C36 right ↔ C25 left



C35 right ↔ C26 left

GLUE THE WHEEL WELL SIDES STRICTLY AFTER THE ENGINE NACELLES ARE GLUED ONTO THE WING!



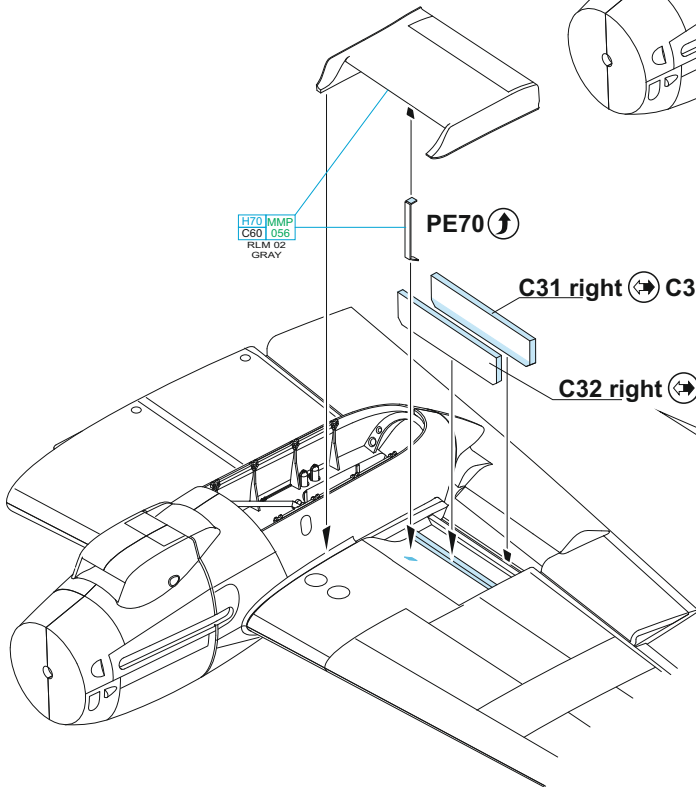
C17 right ↔ C23 left

H70 MMP
C60 056
RLM 02
GRAY

PE70 ↑

C31 right ↔ C33 left

C32 right ↔ C34 left



PE58 right ↔ PE56 left

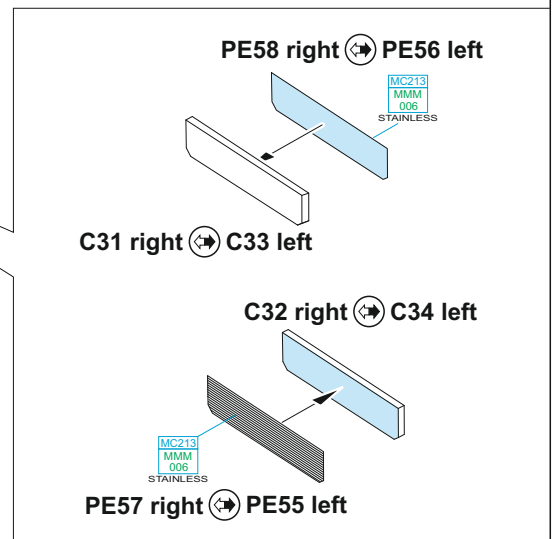
MC213
MMM
006
STAINLESS

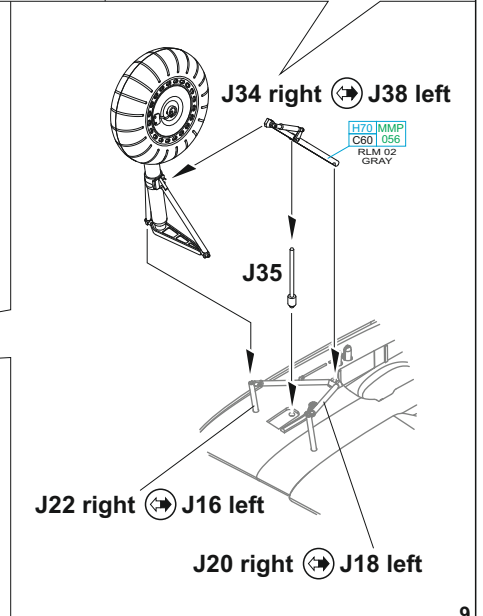
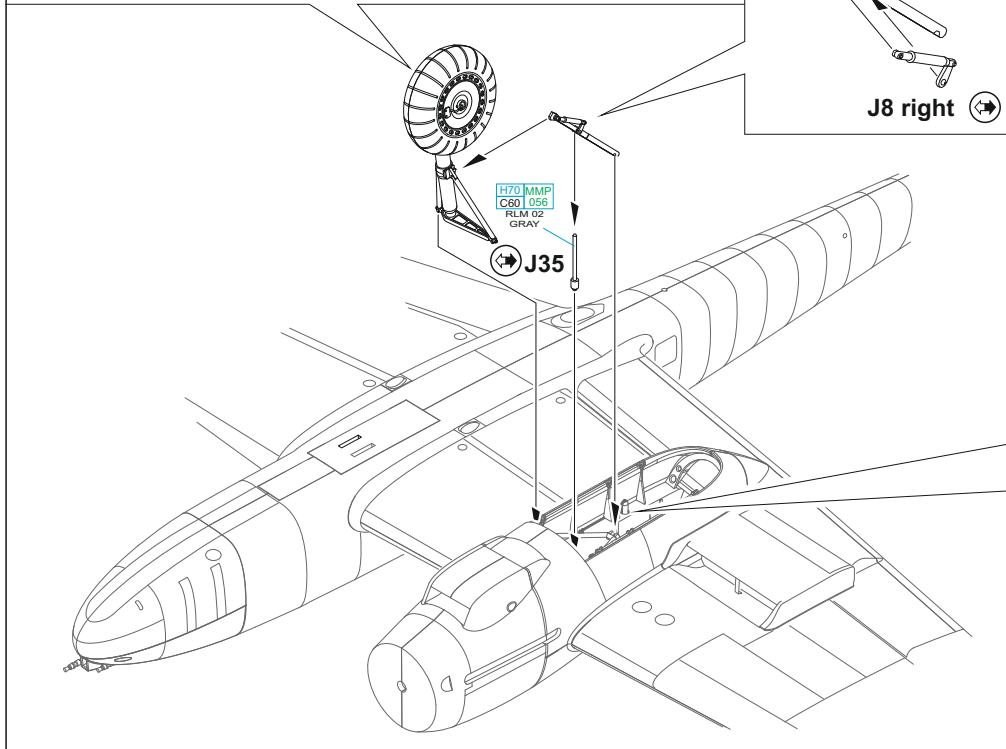
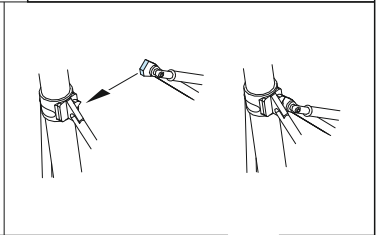
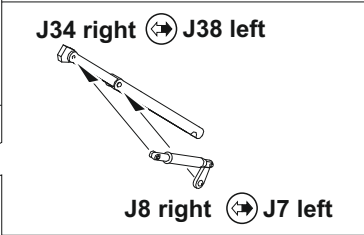
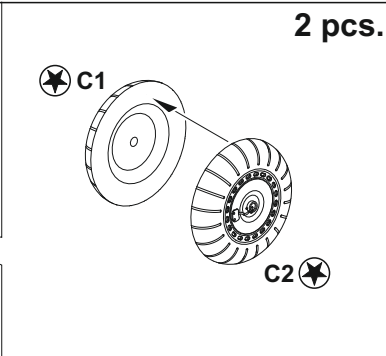
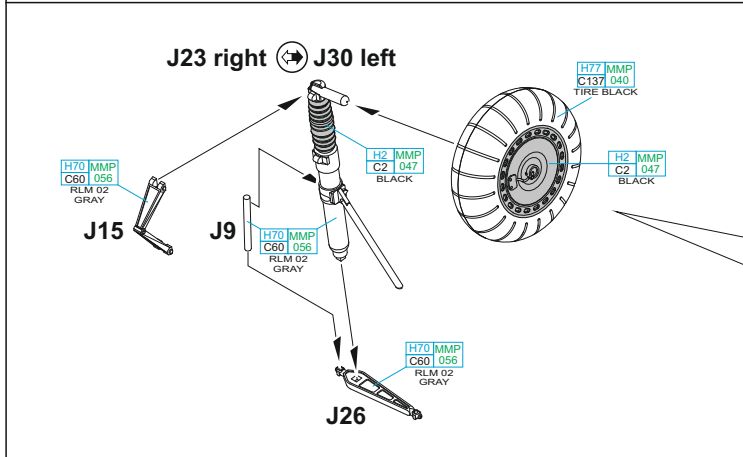
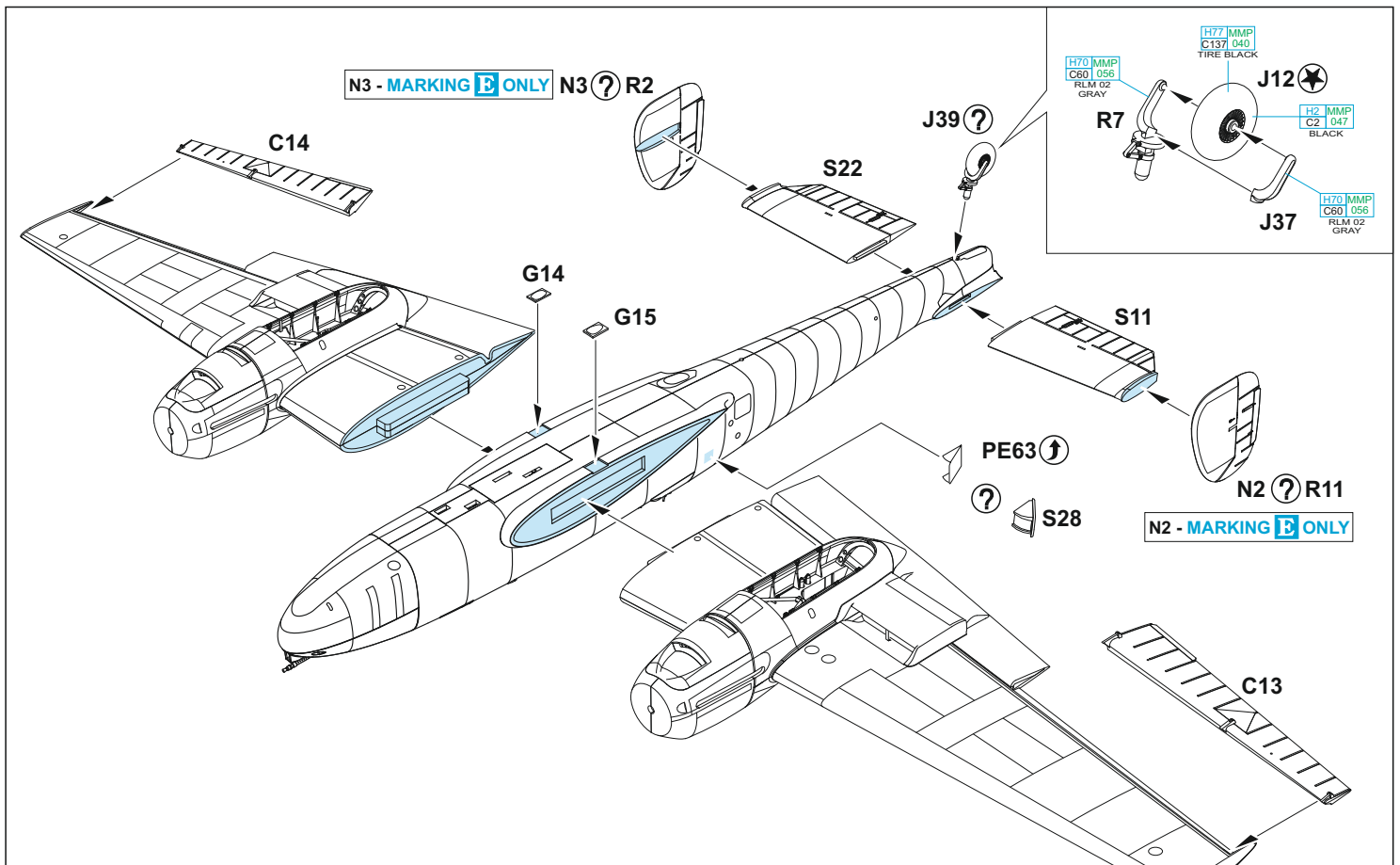
C31 right ↔ C33 left

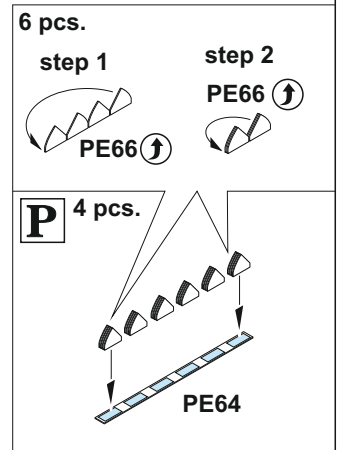
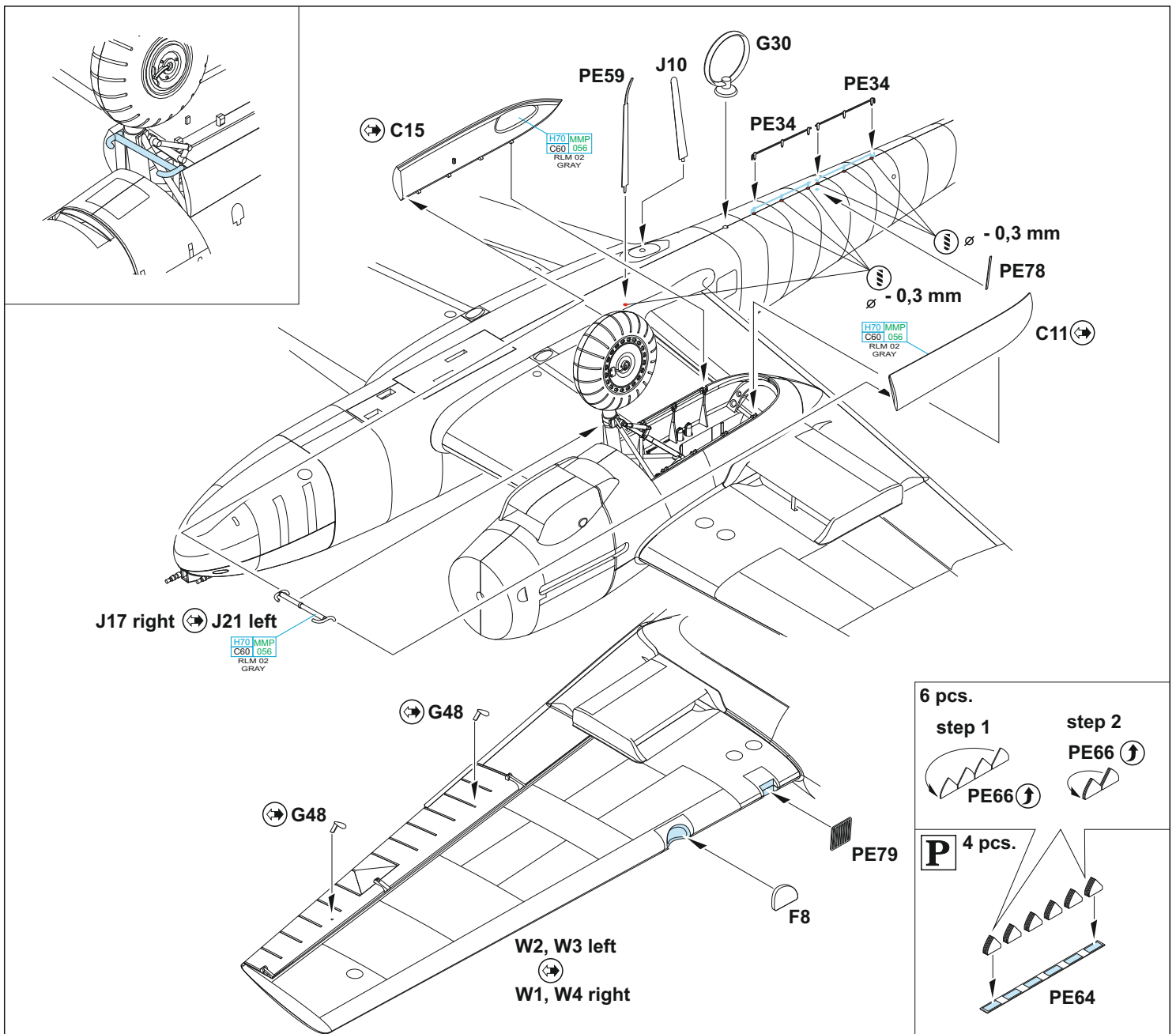
C32 right ↔ C34 left

MC213
MMM
006
STAINLESS

PE57 right ↔ PE55 left

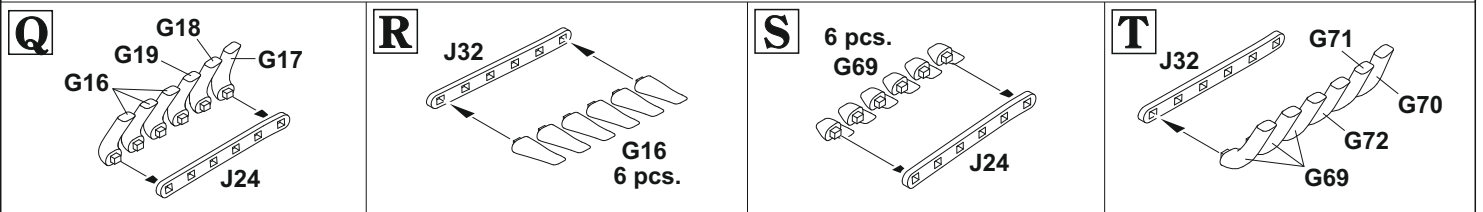




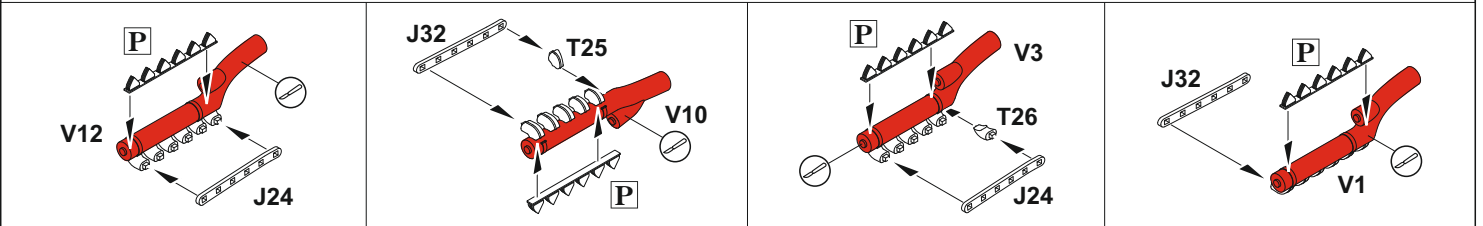


WE RECOMMEND TO GLUE J24/ J32 EXHAUST BESES TO ENGINE NACELLES FIRST, NEXT GLUE THE EXHAUST PIPES TO THE BASES.

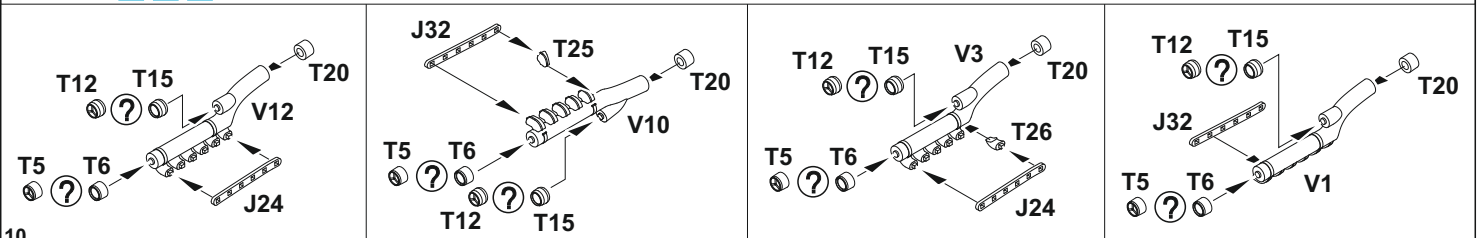
MARKING E

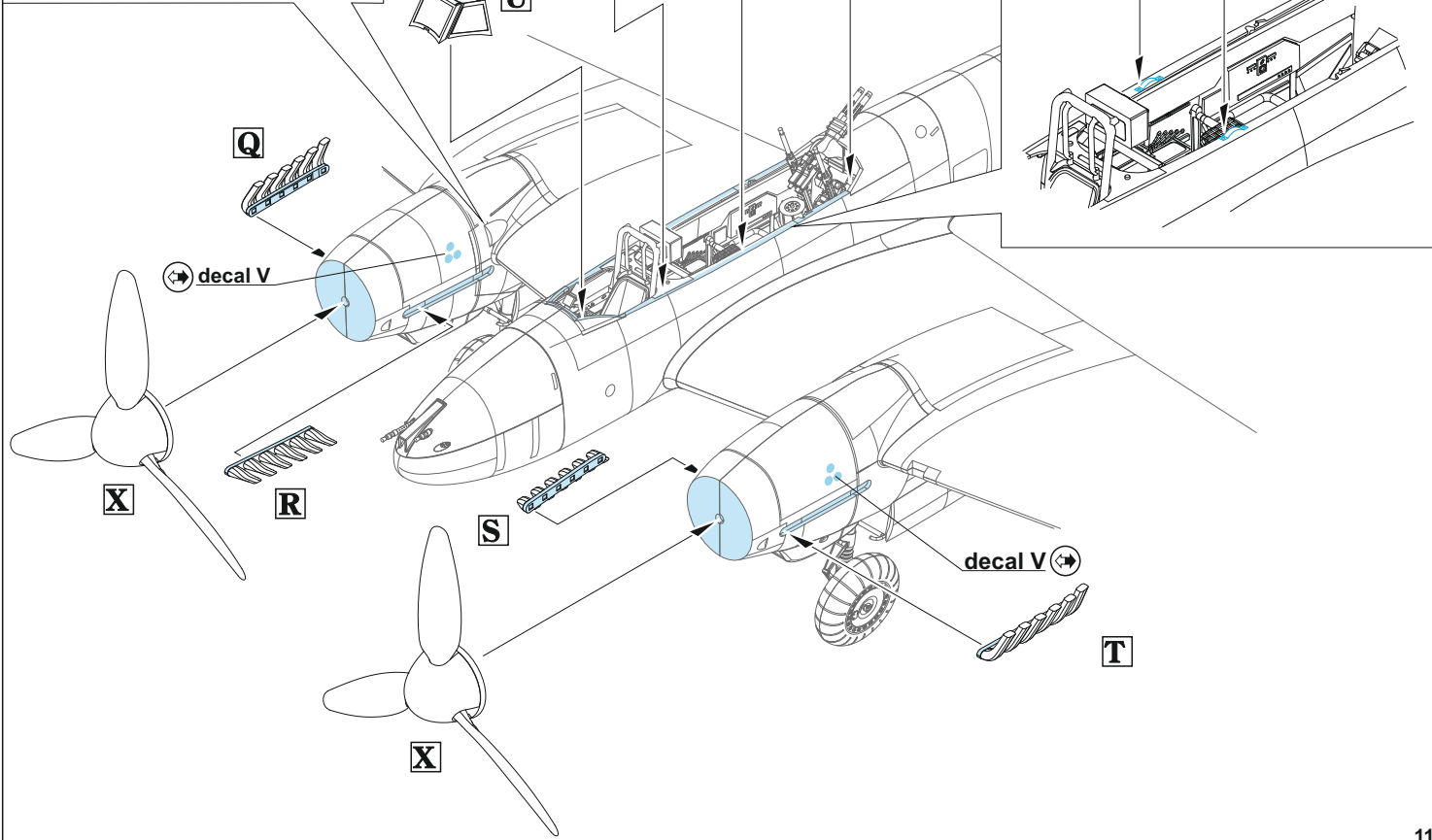
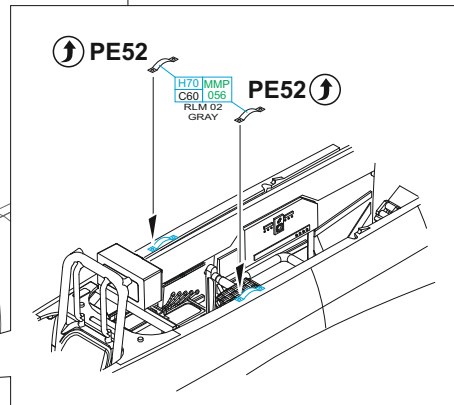
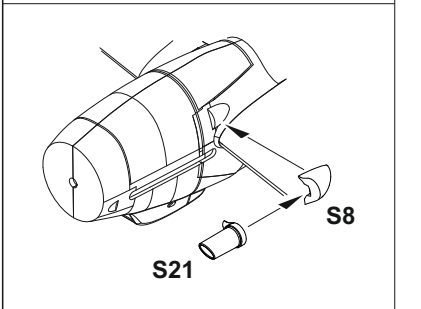
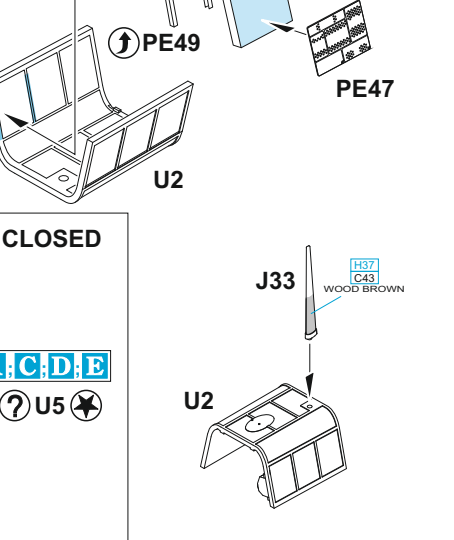
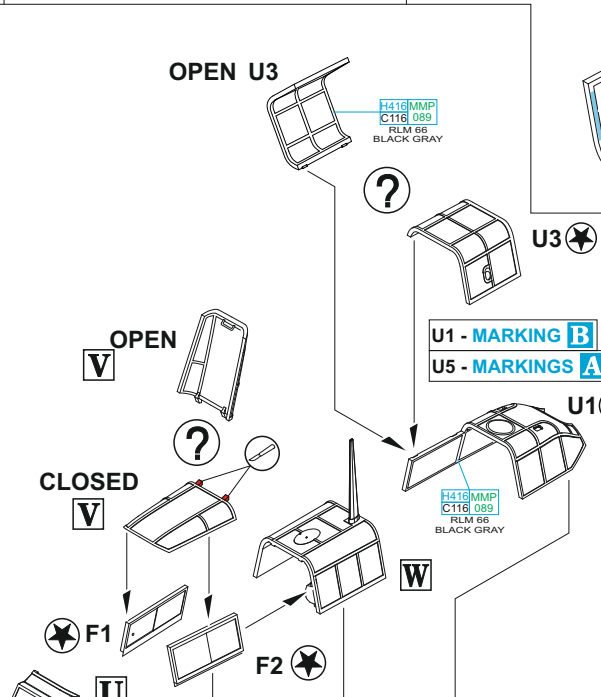
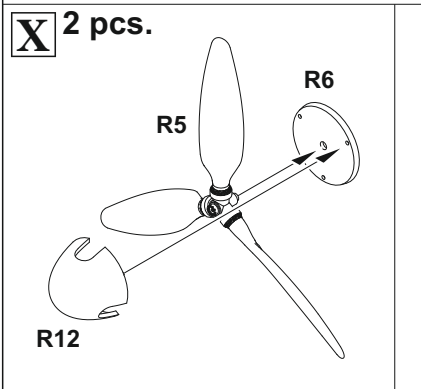
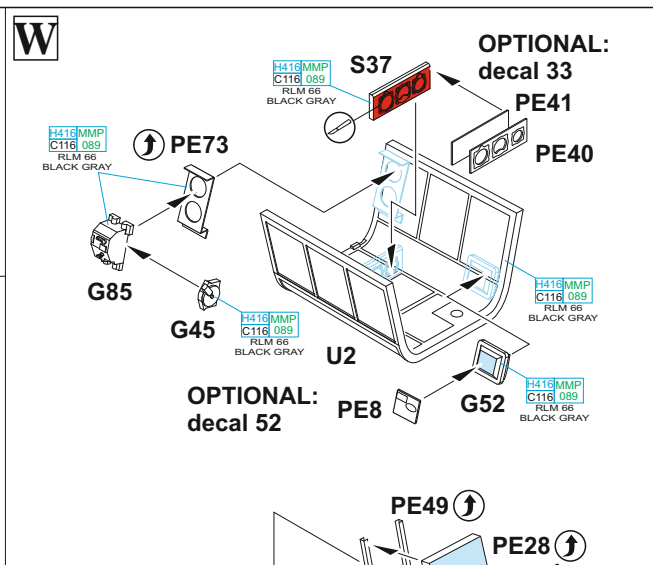
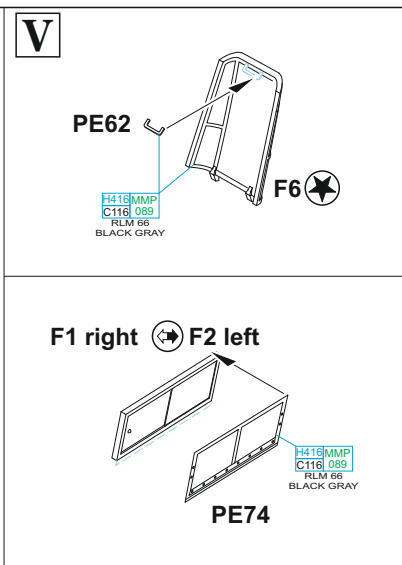
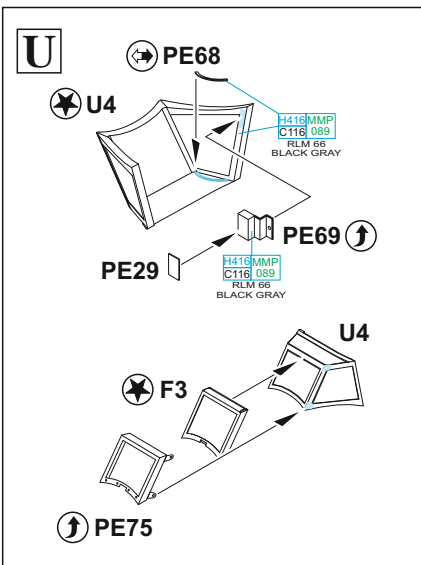


MARKING D

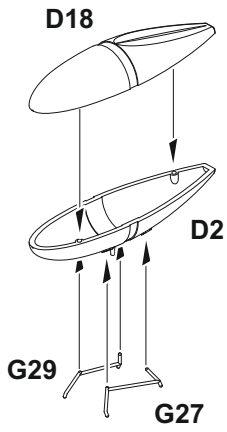


MARKINGS A, B, C

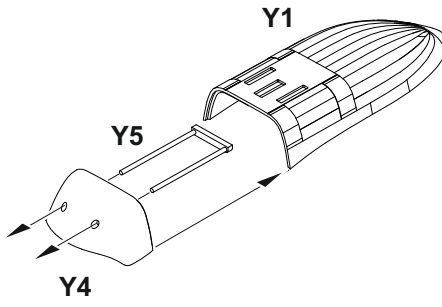




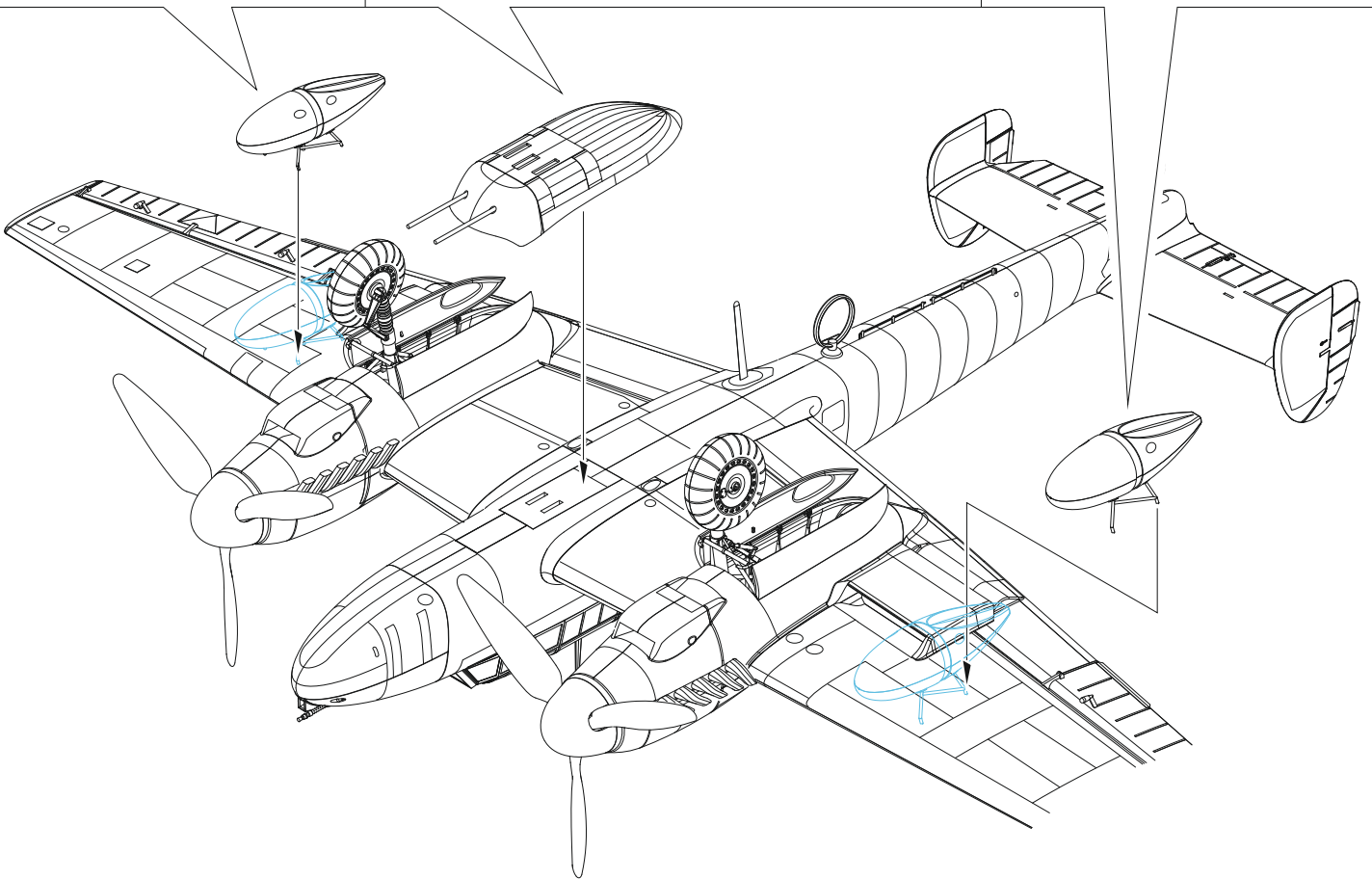
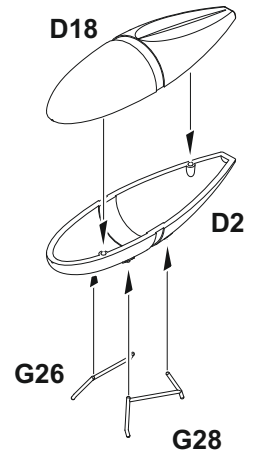
MARKINGS **A**; **B**; **C**; **D** ONLY



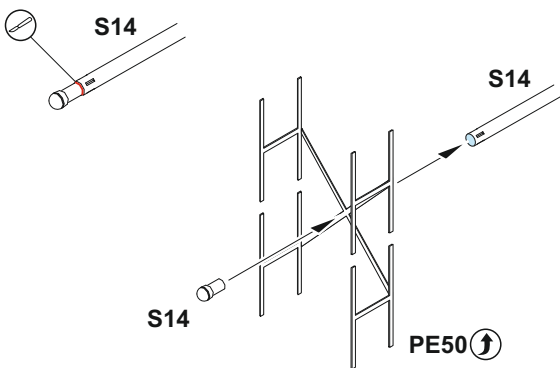
MARKING **A** ONLY



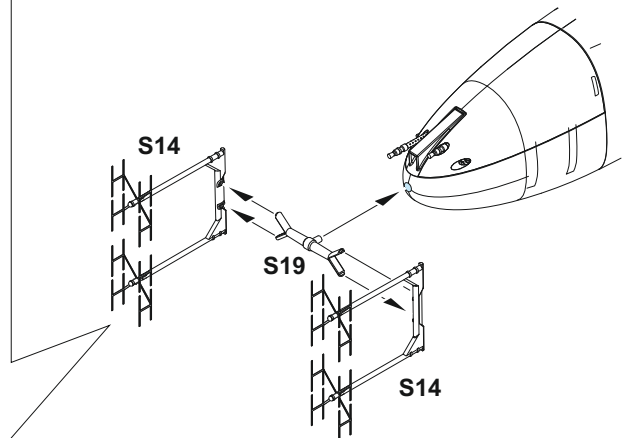
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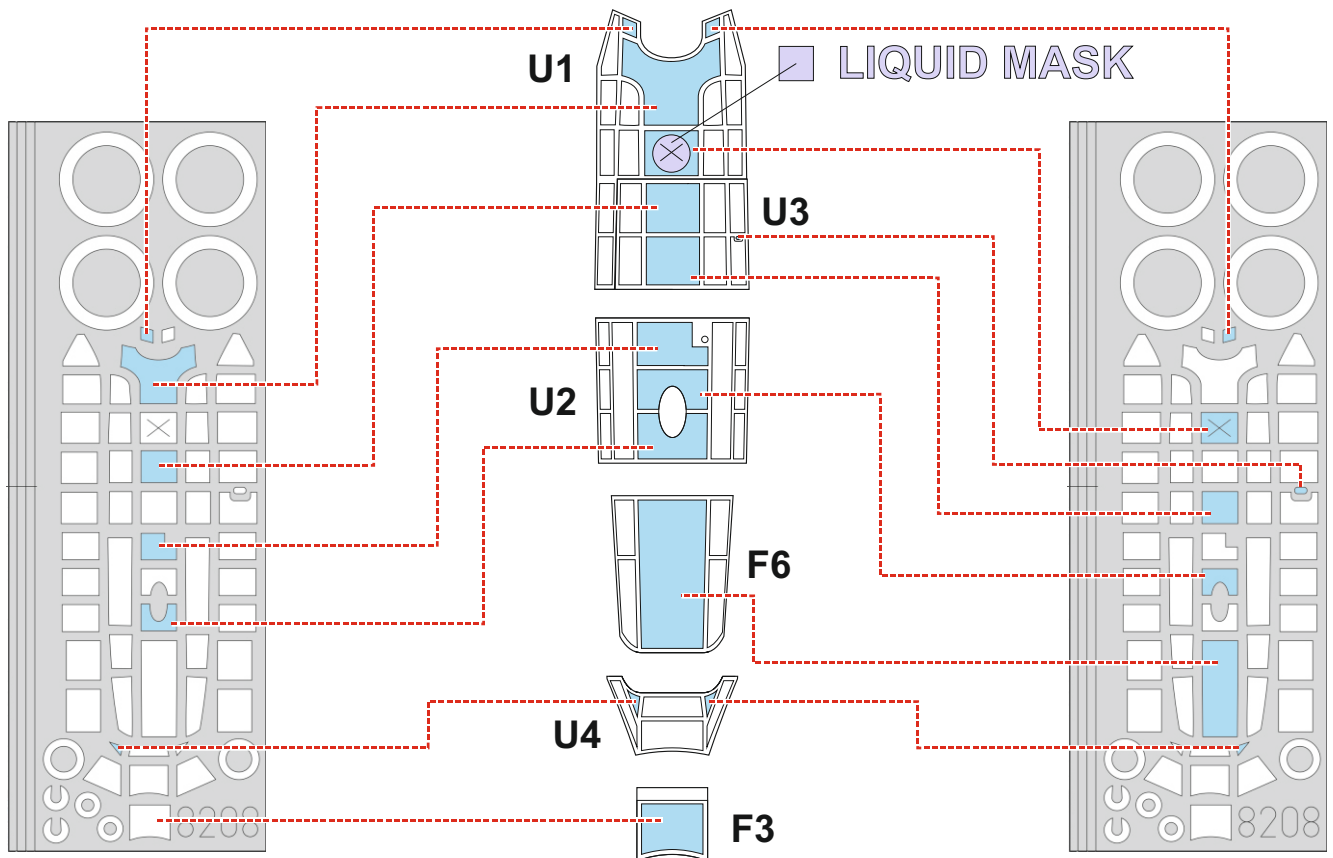
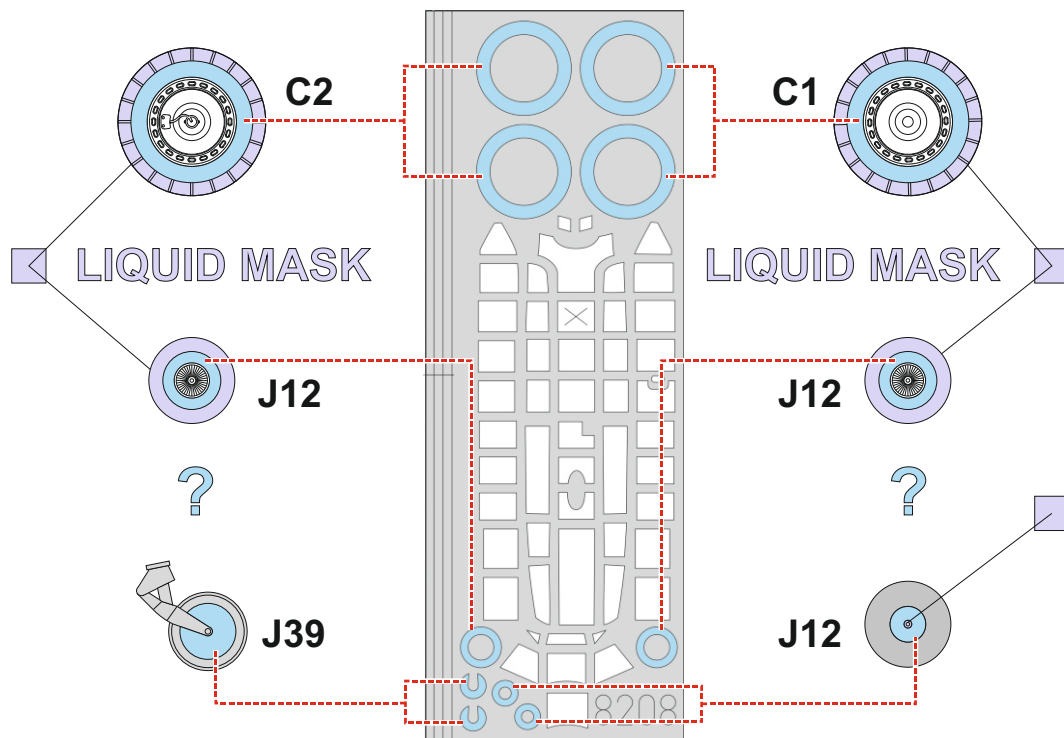


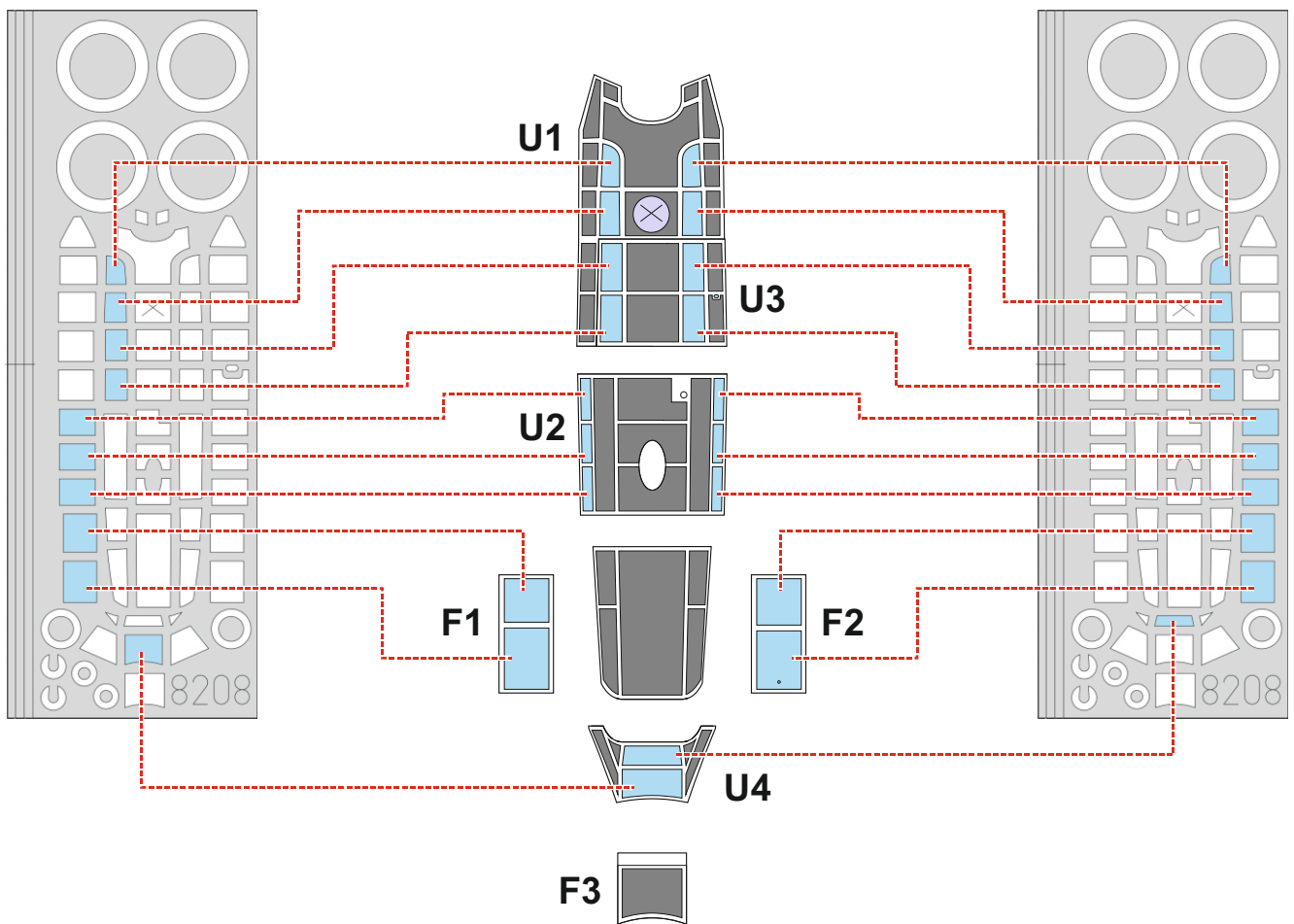
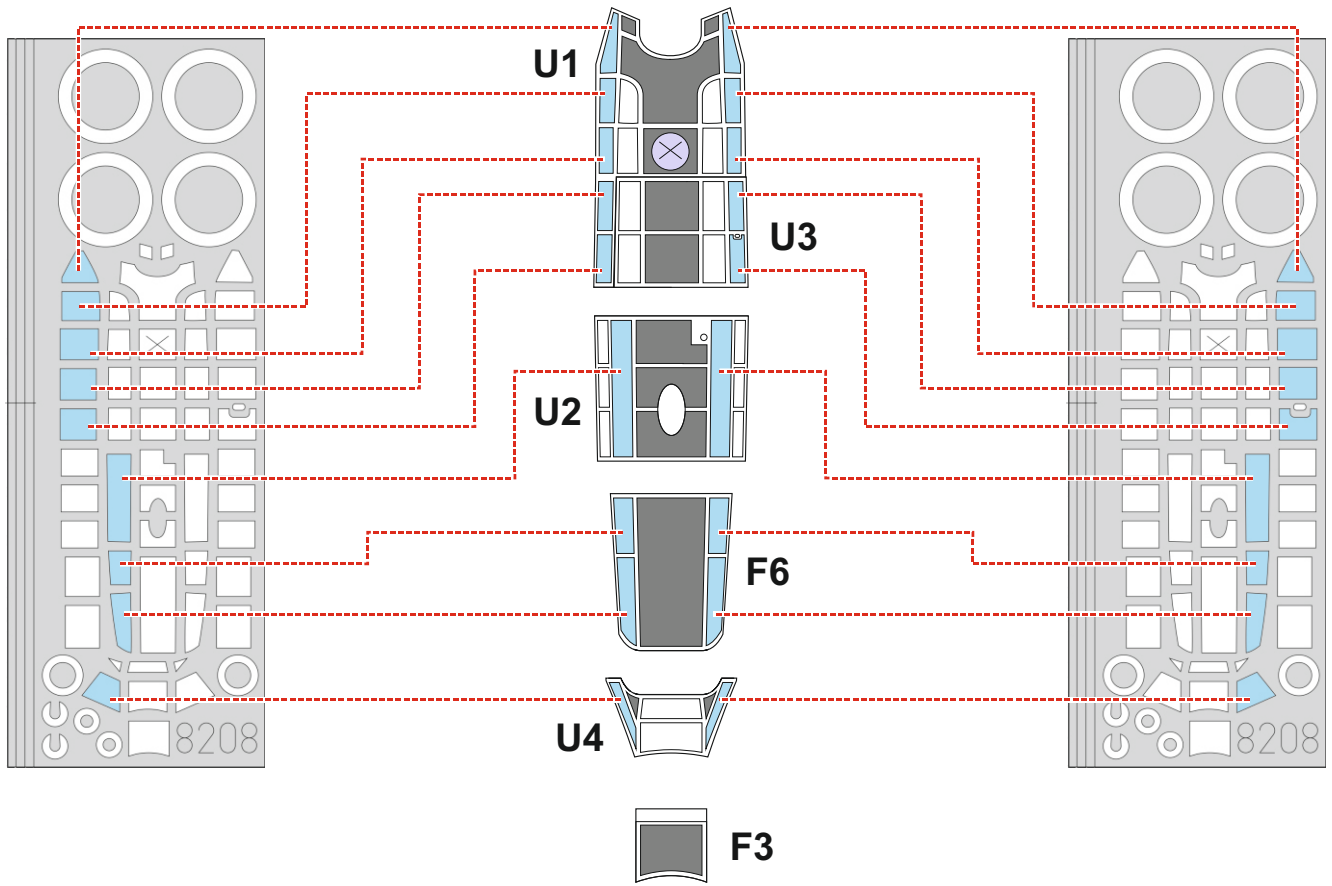
4 pcs.



MARKINGS **A**; **B**; **C**; **D** ONLY

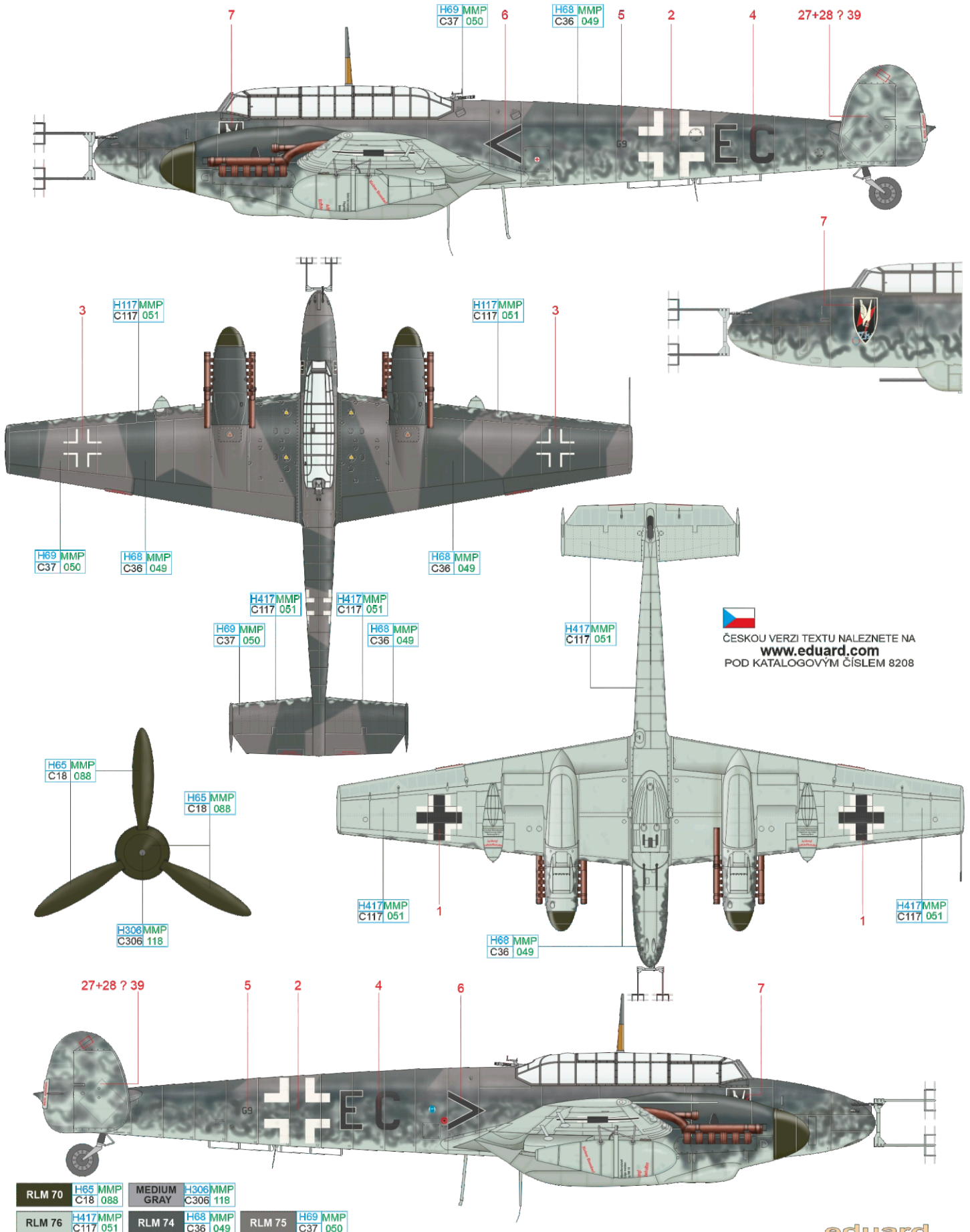




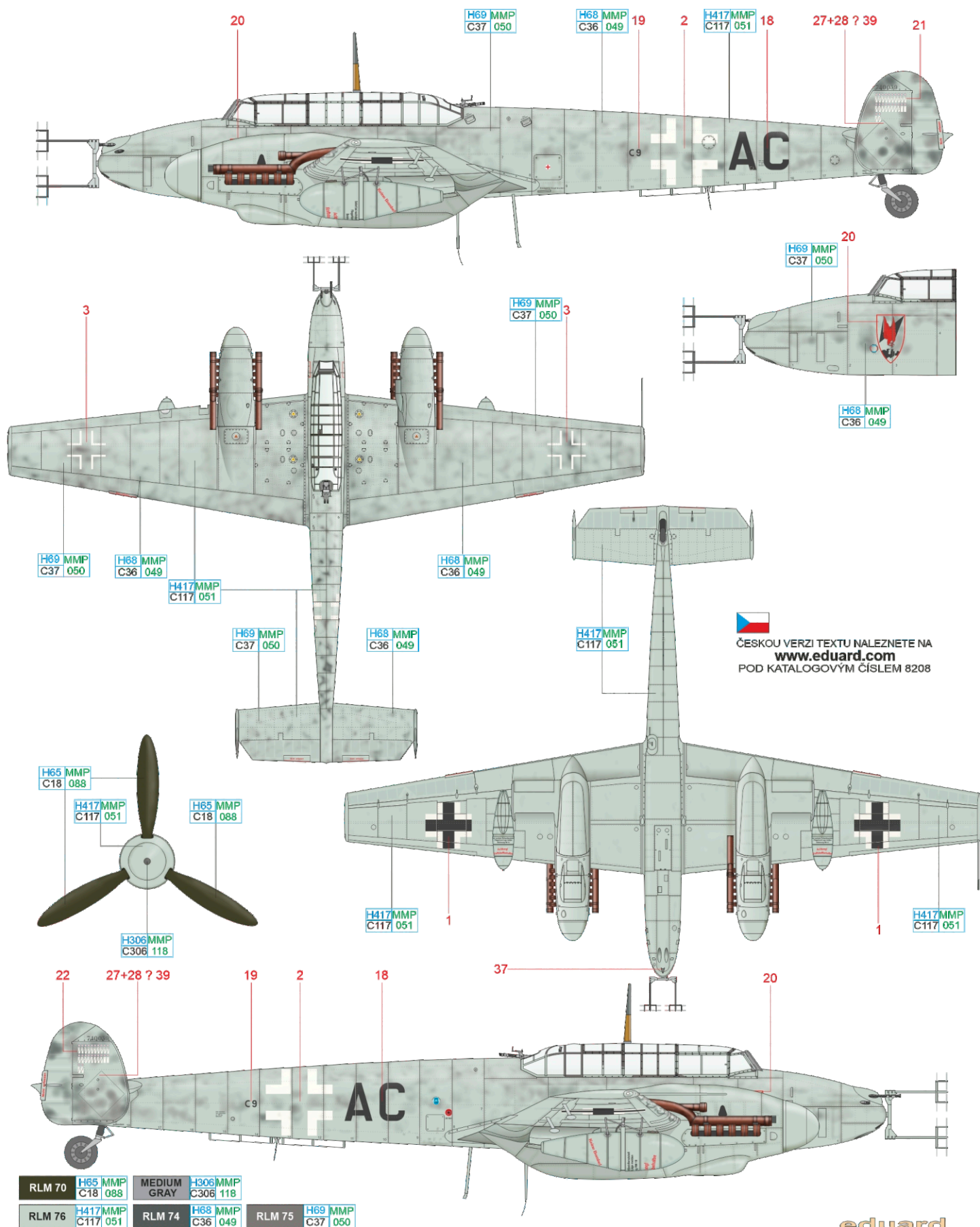


A flown by Lt. Heinz-Wolfgang Schnauffer, II./NJG 1, Saint-Trond, Belgium, April/May 1943

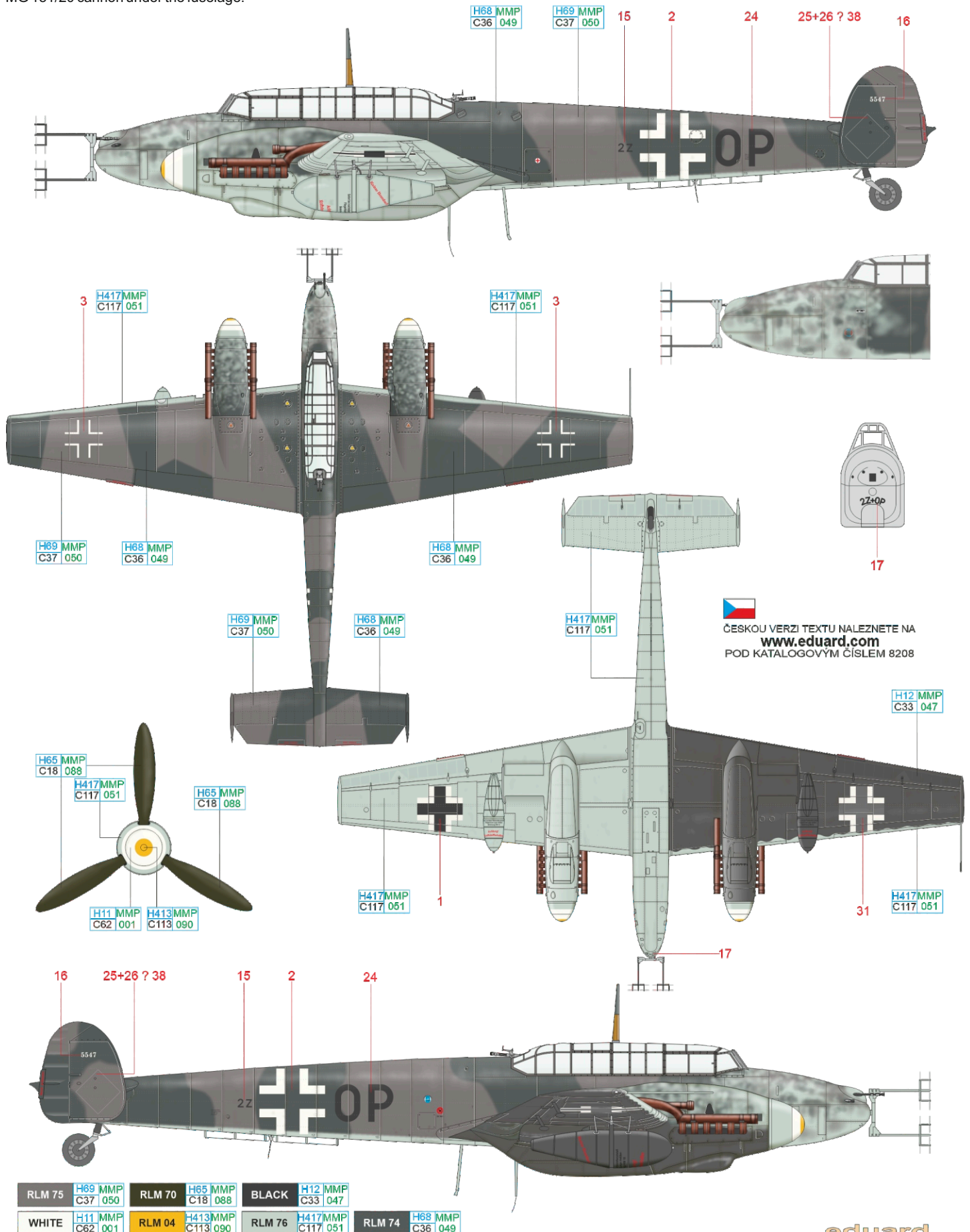
Heinz Wolfgang Schnauffer, the most successful night fighter ace, served with night fighter units from the very beginning of his aviation career. He is credited with 121 victories, most of them being British four-engine bombers. He was wounded only once during WWII, and no member of his crew was ever wounded in action. Schnauffer was awarded the Knight's Cross with Oak leaves, Swords and Diamonds. Schnauffer survived the war and worked at his family winery. He died on June 15th, 1950, two days after a fatal collision involving his car and a truck in Cestas, close to Bordeaux, France. Schnauffer was dubbed 'The Spook from St. Trond', and he flew this aircraft in the spring 1943. The aircraft wore the standard camouflage scheme of RLM 74/75/76 colors. A WB 151 pod containing a pair of MG 151/20 cannon can be seen in photographs of Schnauffer's aircraft.



Oblt. Leopold Fellerer came from Vienna, Austria, where he was born on July 7th, 1919. In 1935 he volunteered for the Austrian Air Force, but was rejected, and he joined the army instead. After the Anschluss of 1938, he again attempted to get into the Air Force, this time the Luftwaffe, but was again rejected, and so he remained with the infantry. After several more attempts, his application was finally accepted, and he began training as a bomber pilot in November 1938. At the beginning of 1941 he was assigned to II./NJG 1, where he accounted for the first kill of a British bomber. On October 10th, 1942, he was given command of 3./NJG 1, which would be renamed in December of the same year as 5./NJG 5. Over the course of the year, his tally had grown to eighteen and Fellerer was elevated to Hauptmann, taking command of II./NJG 5. On April 8th, 1944, he received the Knight's Cross for what were by then 34 aerial victories, and in May of that year, he was made CO of III./NJG 6. Over the course of the Second World War, he was credited with 41 kills. During the fifties, he served with the Austrian Air Force, and commanded Langenlebar Air Base in Tulln. He was killed on July 15th, 1968 in a crash of a Cessna L-19 near Krems.



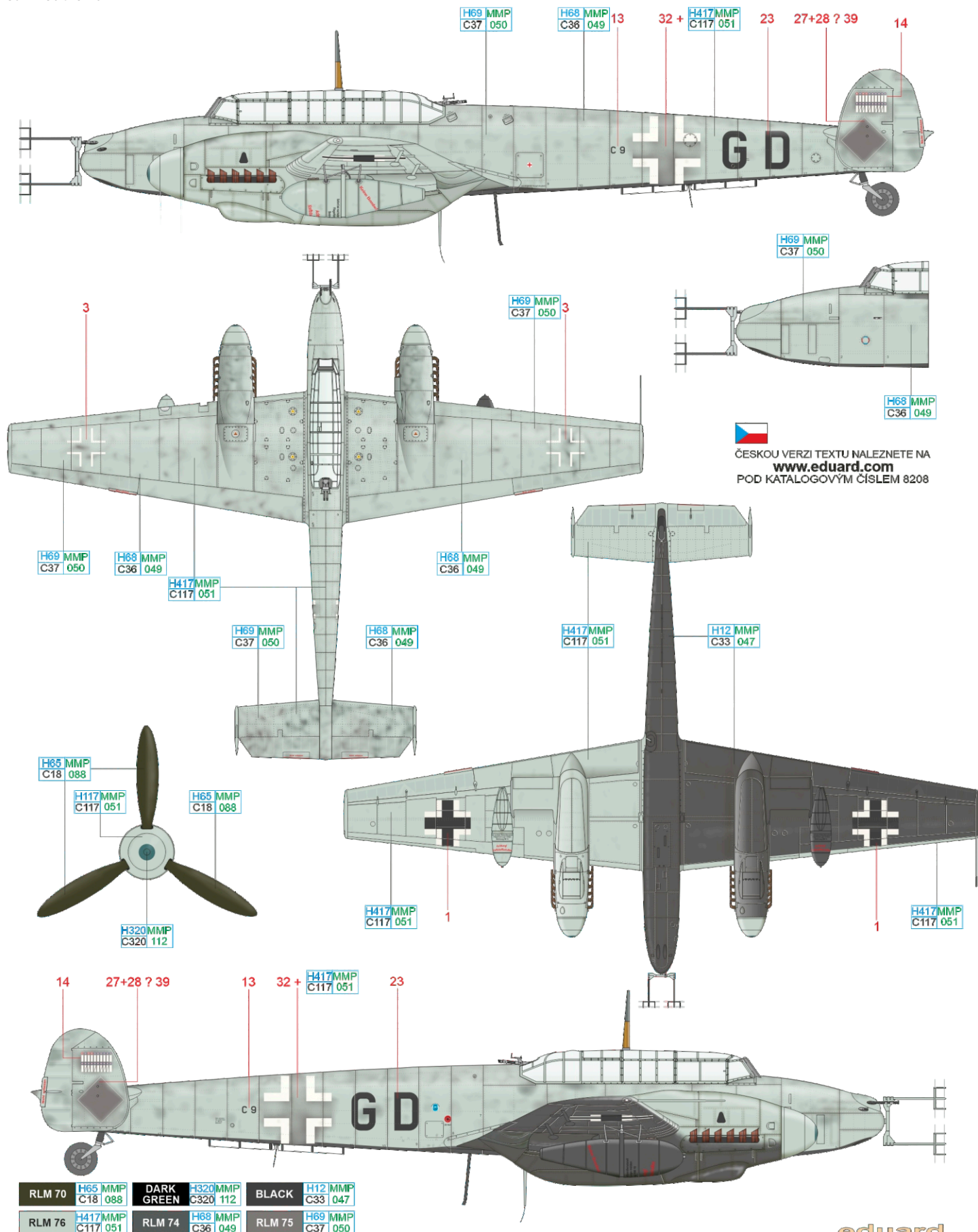
On the night of the 15/16th of March, 1944, after unsuccessful attempts at intercepting British bombers attacking Munich, Ofw. Treynogga became disoriented and for a lack of fuel, set down at Dübendorf in Switzerland. Together with his radio operator, Uffz. Heinz Schwarz, he would spend five weeks in Switzerland and his aircraft, equipped with a FuG 202 radar, was thoroughly tested. After his return to Germany, Ofw. Treynogga was again assigned to the night fighting role. On the night of the 5/6th of June, 1944, he again became disoriented over the town of Graziano in Italy, and he bailed out of his aircraft. He did not survive the event. Bf 110G-4 coded 2Z+OP, with which Ofw. Treynogga landed in Switzerland, was camouflaged in RLM 74/75 on the upper surfaces and the lower ones were sprayed RLM 76. The exception was the lower surface of the right wing, which was in black. This aircraft lacked the two MG 151/20 cannon under the fuselage.



RLM 75	H69 MMP C37 050	RLM 70	H65 MMP C18 088	BLACK	H12 MMP C33 047
WHITE	H11 MMP C62 001	RLM 04	H413 MMP C113 090	RLM 76	H417 MMP C117 051
				RLM 74	H68 MMP C36 049

D flown by Hptm. Walter Borchers, CO of III./NJG 5, Neuruppin, Germany, January 1944

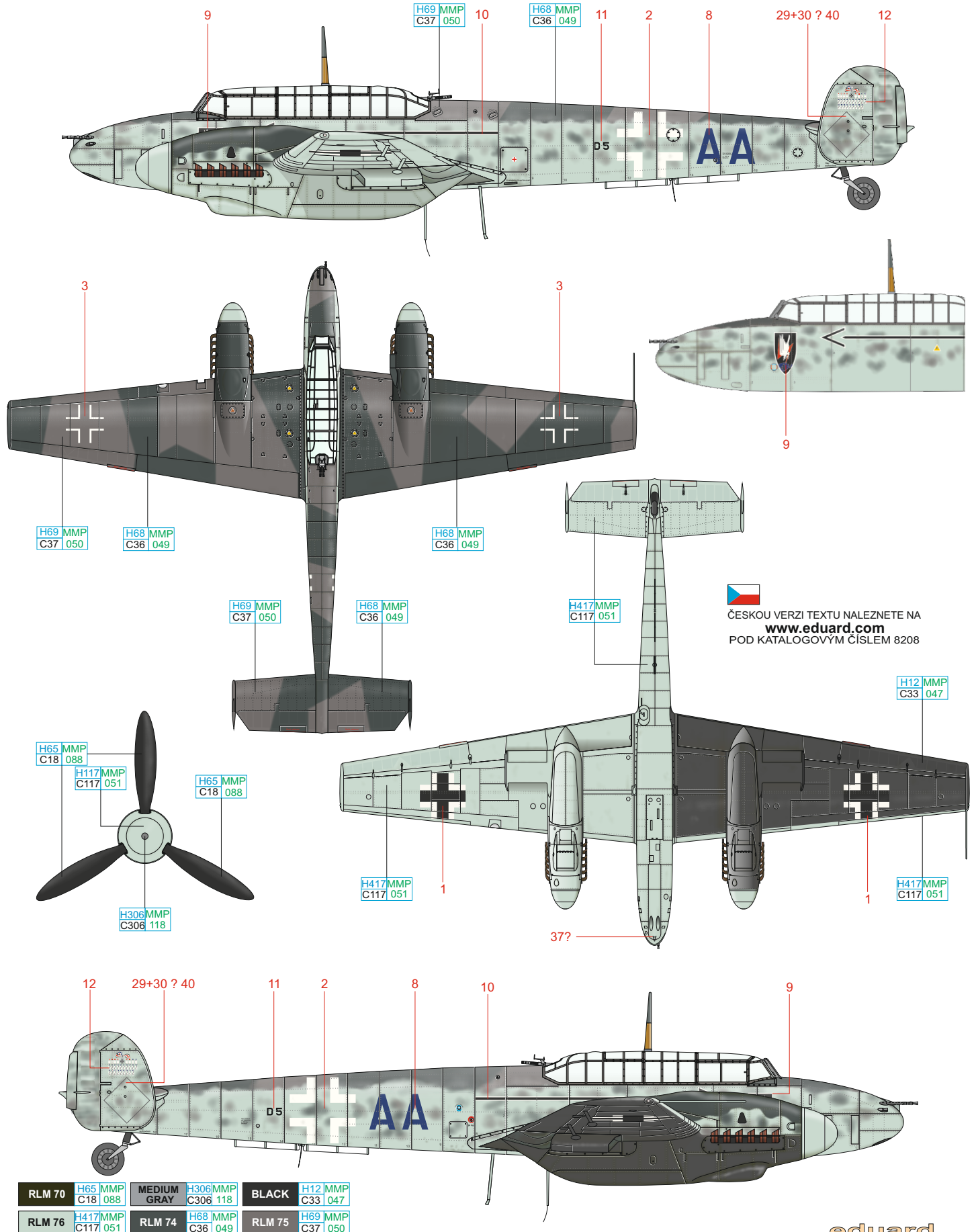
Walter Borchers, a future ace with 59 kills, was born on January 22nd, 1916 in the Ofen, in Lower Saxony. At the beginning of the war, he was attached to 5./ZG 76, equipped with Bf 110s. He took command of the 5. Staffel in the spring of 1940. A year later, the unit was tasked with night fighting and redesignated 8./NJG 3. On April 22nd, 1943, Oblt. Borchers was given command of III./NJG 5, and in a year, as a Major, command of the entire NJG 5. He perished in the cockpit of a Ju 88G-6 on March 6th, 1945, after having downed a British Lancaster north of Altenburg. This came at the hands of a Mosquito night fighter crewed by W/Cdr Walter Gibb and F/Lt Kendall from No.239 Squadron, RAF. Out of Borchers' crew, only the rear gunner survived. Walter Borchers had two brothers, all served in the Second World War, and all were awarded the Knight's Cross. The oldest of them, Hermann, received his on October 16th, 1944. Adolf on November 22nd, 1944 and the youngest of the trio, Walter, on July 27th, 1944. Both his brothers, Adolf and Hermann, survived the war.



RLM 70	H65 MMP C18 088	DARK GREEN	H320 MMP C320 112	BLACK	H12 MMP C33 047
RLM 76	H417 MMP C117 051	RLM 74	H68 MMP C36 049	RLM 75	H69 MMP C37 050

E Maj. Helmut Lent, the CO of Stab NJG 3, Stade, Germany, September 1944

Helmut Lent joined the Luftwaffe in 1936. He enlisted as a fighter pilot and served with II./JG 141. On May 1st, 1939, II./JG 141 was redesignated I./ZG 76 and equipped with Bf 110 fighters. In battles over Poland, Norway and France, Lent downed seven enemy aircraft, and 101 victories were added to his credit while serving with NJG 1, NJG 2 and NJG 3. On August 1st, 1943, when he was 25 years old, Maj. Lent was appointed CO of the entire NJG 3. He led the Geschwader until October 5th, 1944 when his Ju 88G-6 crashed during landing after port engine failure. The entire crew succumbed to their injuries within two days. Lent was awarded the Knight's Cross with Oak Leaves, Swords and Diamonds. Lent's Bf 110G-4 wore a standard day fighter camouflage scheme of RLM 74/75/76. The starboard wing undersurfaces were painted black. Note the Geschwader CO marking on the fuselage, quite an unusual practice for night fighter units.



RLM 70	H65 MMP C18 088	MEDIUM GRAY	H306 MMP C306 118	BLACK	H12 MMP C33 047
RLM 76	H417 MMP C117 051	RLM 74	H68 MMP C36 049	RLM 75	H69 MMP C37 050

