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LIMITED EDITION

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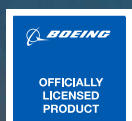


# Very Long Range: Tales of Iwojima

## INSTRUCTION SHEET

11142-NAV1

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## Forewords by Brian Walters

Operating from three runways on the island of Iwo Jima, the VLR (Very Long Range) Mustangs of the United States Army Air Forces 7<sup>th</sup> Fighter Command were able to use the extended range of the P-51 to fly to and from the mainland of Japan for escort and ground attack missions. The 15<sup>th</sup>, 21<sup>st</sup>, and 506<sup>th</sup> Fighter Groups (FG) formed this force of P-51's, often sending one hundred-plus aircraft to Japan. Fighting not only the enemy, but also enduring harsh weather issues, environmental hazards of the island, and lack of incoming intelligence and supplies, the FGs persevered and contributed a great deal to victory in the Pacific. In addition to the 51 VLR missions to Japan, their operations also included 171 strike missions to the Bonin Islands and over 10,000 hours of Combat Air Patrol around Iwo Jima.

The 15<sup>th</sup> FG was formed before the war and was involved in combat at Pearl Harbor. The 15<sup>th</sup> FG was essentially created for the defense of the Hawaiian Islands, however they did deploy in P-39s and P-40s to the Central Pacific, including Canton and Baker islands. While combat activity was relatively quiet there, the group played a central role in Operation Flintlock; the Gilbert and Marshall Islands campaign. The 15<sup>th</sup> FG, now comprised of the 45<sup>th</sup>, 47<sup>th</sup>, and 78<sup>th</sup> Fighter Squadrons (FS) arrived on Iwo Jima on March 7<sup>th</sup>, 1945 before US occupation was complete. Their first missions involved close air support of Marines on the island. Flying from South Field (Airfield #1), the 15<sup>th</sup> FG also began missions to the Bonin Islands, which were located about 150 miles north of Iwo Jima. This small group of Japanese territories included Haha-Jima and Chichi-Jima, well-known as the location US president George H.W. Bush was shot down in his TBF Avenger.

Joining the 15<sup>th</sup> FG early on was the 21<sup>st</sup> FG who would fly from Central Field (Airfield #2). Activated in April of 1944, the 21<sup>st</sup> FG absorbed the 46<sup>th</sup> FS and 72<sup>nd</sup> FS (previously attached to the 15<sup>th</sup> and 318<sup>th</sup> FGs) as well as the newly formed 531<sup>st</sup> FS. The group was declared operational for tactical combat on March 24<sup>th</sup>, 1945 from Iwo Jima. Just two days later, the 21<sup>st</sup> FG along with the 549<sup>th</sup> Night Fighter Squadron (NFS) bore the brunt of a Japanese Banzai attack of about 250 soldiers. The 21<sup>st</sup> FG suffered 14 killed and 50 wounded. The total casualties among all units involved in this attack was 44 killed and 88 wounded. Shortly thereafter, the 21<sup>st</sup> FG got their chance to strike back with their first mission to Chichi-Jima, sending 32 P-51's to attack a radar installation.

On April 7<sup>th</sup>, 1945, the first VLR mission was flown. This mission achieved several historic records: it was the longest flight mission over water to hit a target, the longest mission ever flown by P-51 Mustangs, and the first time land-based fighters had invaded the skies over Japan. The mission itself was an escort of B-29s from the 73<sup>rd</sup> Bomber Wing attacking the Nakajima Aircraft Engine Plant in Tokyo. More than ninety P-51s from both the 15<sup>th</sup> and 21<sup>st</sup> FGs departed Iwo Jima and rendezvoused with their B-29 navigator aircraft that led them to the bomber force over the coast of Japan. The Mustang pilots stayed with the bombers, only attacking Japanese aircraft when they threatened the B-29s. Even so, they scored 21 enemy fighters destroyed, with 6 probable and 10 damaged. Only three B-29s were lost: 2 to anti-aircraft fire and 1 to a Japanese bomb dropped on the formation. Both XXI Bomber Command and Seventh Fighter Command were very pleased with the results.

After more VLR missions to Japan and attacks on the Bonin Islands, the 506<sup>th</sup> FG joined the fight on May 16<sup>th</sup>, 1945, as they were waiting for North Field (Airfield #3) to be completed. The 506<sup>th</sup> FG was formed in October 1944 in Lakeland, FL, specifically for the VLR mission. This new group included the 457<sup>th</sup>, 458<sup>th</sup>, and 462<sup>nd</sup> FSs and immediately started training for the long-range flights. The group consisted of combat veterans, stateside pilot instructors and new replacement pilots who had all logged many hours in the P-51 by the time they deployed. The 506<sup>th</sup> FG immediately started flying Combat Air Patrol (CAP) and on May 18<sup>th</sup>, the 462<sup>nd</sup> FS sent 12 P-51s with 500 pound GP bombs to attack Chichi-Jima. Due to weather issues, the first VLR mission for the group was executed more than a week later. On May 28<sup>th</sup>, 1945 the 506<sup>th</sup> FG sent 53 Mustangs for a strafing attack on Kasumigaura airfield in the Mito area of Honshu, Japan.

Shortly thereafter, one of the worst non-combat losses during the war for the US occurred on June 1<sup>st</sup>, 1945. The objective was for all three fighter groups to provide escort for more than 400 B-29s on a bombing mission to Osaka City, Japan. 148 P-51s from all three groups took off from Iwo Jima to join with their "mother hen" B-29s navigators. About 350 miles into their journey, they encountered a monstrous storm front. Due to the uncertainty of the navigating B-29s, an inexperienced weather observer, and some say pressure to move on with the mission because of several previous weather aborts, the Mustangs were led into the deadly front. By the end of the catastrophe, only twenty-seven P-51s prevailed to complete their mission. Twenty-four pilots and their Mustangs were lost, not one to enemy fire.

A typical VLR mission was a substantial combined effort that included several branches of the US military. Every mission started with a B-24 weather plane flying the route 6-10 hours before the mission, as well as a B-29 flying approximately 100 miles ahead of the main force to report on the current weather. Then, once the Mustangs took off, navigator B-29s led the P-51s to and from the Japan mainland, as precision navigation in a single-seat aircraft flying completely over water was impractical. Several P-61 Black Widows would also act as navigators, flying about an hour north of Iwo Jima to accompany Mustangs to the rendezvous point. The P-61s also returned any spare aircraft not needed for the mission. B-24s also often participated in these missions as communications relay aircraft. All the aircraft often would then be able to assist in air-sea rescue of downed pilots. Along the route from Iwo Jima to Japan and back, the US Navy and the Army Air Sea Rescue coordinated a minimum of 5 rescue stations. These stations would be composed of surfaced submarines at the two- or three-points closest to Japan,

destroyer ships on the remaining stations, and airborne Dumbo aircraft circling overhead. When a Mustang pilot discovered that they could not make it back to Iwo due to damage or aircraft malfunction, they would be vectored to the nearest rescue station. At the last rescue station, four P-51s were assigned on every mission to provide top cover for the surfaced submarine about 10 miles off the coast of Japan. The navigating B-29s circled off the coast and waited until they had between 15 and 20 P-51s before starting their return trip to Iwo. Once the Mustangs got close enough to Iwo Jima, P-61s would again be able to assist in navigation, as well as having Army amphibious vehicles prowling the Iwo Jima beaches ready for any pilots having to ditch close to the island.

As for the P-51 aircraft itself, all three fighter groups flew standard block P-51D-20-NA and P-51D-25-NA Mustangs, with a few modifications that were made to enhance the airplane on the VLR missions. The most visible and arguably most important modification was the "Uncle Dog" homing beacon system. Twin antenna masts for the AN/ARA-8 VHF homing adapter were installed on the spine of the fuselage of the P-51s. The normal AN-104-A radio antenna mast was then moved to the underside of the aircraft, centered in front of the wheel wells. The navigator "Mother Hen" B-29s transmitted a homing beacon to and from Japan, which the P-51's system would pick up and convert to an audio signal consisting of the International Morse Code letter's "U" or "D". Guided by the transponder beacon, the pilot turned his aircraft to follow a steady tone in his headset of both letters to indicate they were on course. The signal was also transmitted from Iwo Jima from the top of Mt. Suribachi to aid with navigation to the island. The Uncle Dog modifications were done 'in theater' by the groups, with the last P-51 on Iwo receiving the installation in mid-June 1945. This new system required some training for the pilots. Also modified was the SCR-695 IFF (Identification friend or foe) transmitter, which was placed in the cockpit, behind the normal SCR-522 radio command set. In doing so, the battery was moved from its normal placement behind the SCR-522 to inside the engine compartment. A small air scoop for cooling was then added on the port side of the fuselage, just above and before the leading edge of the wing. The P-51 was also equipped with AN/APS-13 Tail Warning system but many pilots turned it off and some squadrons removed it altogether. The purpose of this system was to indicate the presence of aircraft in the rear, which when detected lit a warning lamp in the cockpit and rang a bell. Besides these modifications, crew chiefs found it necessary to deal with the constantly blowing dust and dirt by covering up as many of the openings on the P-51 as possible. Covers were used on the front cowl vents, machine gun barrels, as well as on the shell case ejection chute openings on the underside of the wings.

On the VLR missions, the P-51s always carried either 110 or 165 gallon drop tanks. The 110 gallon tanks were used as the main drop tank for missions, while the 165 gallon tanks were mainly used for carrying rockets and Air Sea Rescue top cover sorties. Because of the oversized nature of both tanks, sway braces were used to help support them. These braces were mainly constructed while on Iwo, initially made out of leftover plywood found on the island. However, there were problems with these as some warping or bending of the wood could cause the tanks to not release properly. Scrap metal was then used by engineering sections to furnish proper type braces for the 110-gallon tanks. Because of flying mostly over water, Cpt. Jim Tapp and Cpt. Vic Mollan of the 78<sup>th</sup> FS constructed a droppable rescue kit, which was later codenamed "Josephine". The kit, which included an A-3 life raft, survival radio, rations, and visual signal equipment, was placed into a modified 110 gallon drop tank. The tank would be released, separate, and parachute the contents to the downed pilot. In addition to the drop tanks and Josephine, 500 pound general purpose bombs were used in attacks on the Bonin Islands and early on close air support missions. In May 1945, a few squadrons like the 78<sup>th</sup> and 531<sup>st</sup> started installing rocket launchers on their P-51s. However, due to the lack of available rocket kits, not every Mustang in all squadrons were equipped with them by the end of the war. The P-51s were able to carry a maximum of three 5 inch rockets under each wing with the 165 gallon drop tanks to account for the extra drag. Another obstacle to overcome was the introduction of the new K-14A gunsight. Pilots had no previous training on how to use it and parts for the gunsights were not in supply until late summer 1945.

Between April 7<sup>th</sup> and August 14<sup>th</sup>, 1945, a total of 51 Very Long Range missions were flown with 41 being effective. There were 9 non-effective weather aborts and 1 missed escort meeting. Weather was a major factor, and besides the 9 mission aborts, many other missions were delayed or changed before the P-51s ever took off. While each effective VLR mission had an average flight time of 7.3 hours, reports of pilots flying more than 8 hours and landing with only several gallons of fuel left was common. When the 7<sup>th</sup> Fighter Command was given the directive that they would be tasked with escorting the B-29s from the Marianas, that is exactly what they prepared and planned for. However, it was soon apparent once the VLR missions started that escorting the B-29s would not be needed as the Japanese began to keep most of their aircraft on the ground, hidden and safe, realizing the strong possibility of a full US invasion of their homeland. The 506<sup>th</sup> FG, for example, had only seen a maximum of 40 enemy aircraft in the air at one time and that was in the beginning of June. Out of the 51 VLR missions only 14 were of the escort type with only 3 occurring in July and August. The 7<sup>th</sup> Fighter Command then turned to having the P-51s attack targets of opportunity in Japan on the surface. And while not the most ideal platform for ground attack, the P-51 performed admirably in the 39 VLR strike missions to Japan. In their somewhat short participation in the war, 7<sup>th</sup> Fighter Command racked up an impressive tally of 225 enemy aircraft destroyed in the air, with 56 probable and 119 damaged. On the ground they claimed 219 destroyed and 450 damaged, as well as hundreds of surface vessels, locomotives and railroad cars, buildings and hangers, and radio/radar stations. Those numbers, however, did come with a cost of the lives of 107 pilots.

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 započatím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel 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

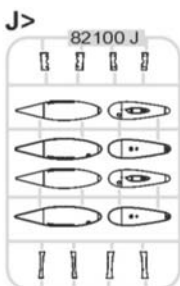
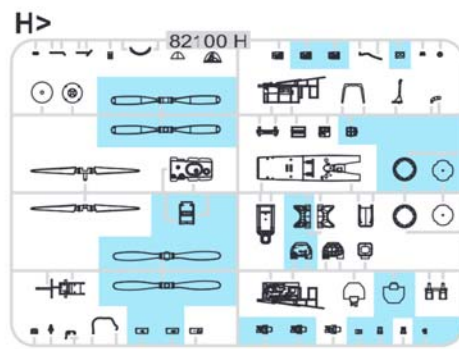
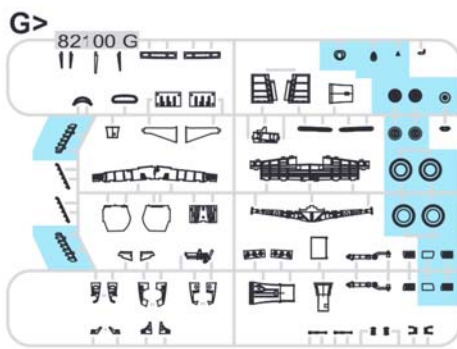
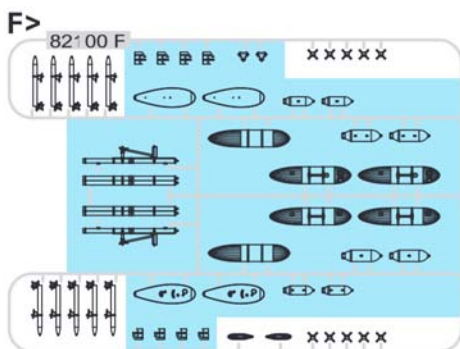
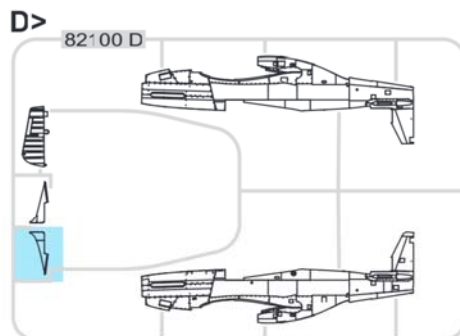
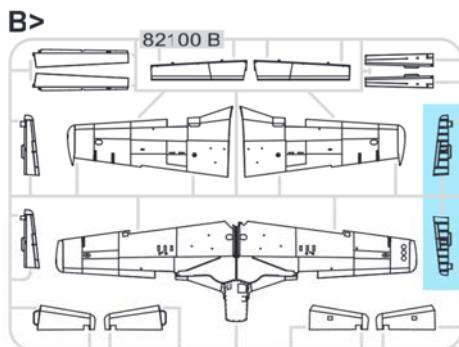
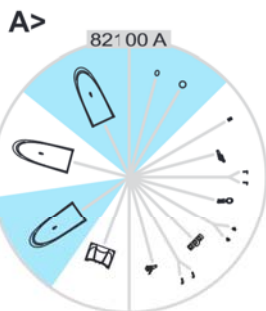


PIÈCES

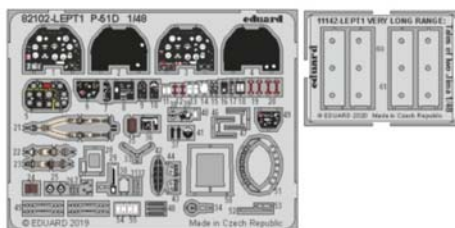


部品

## PLASTIC PARTS



## PE - PHOTO ETCHED DETAIL PARTS



## RP - RESIN PARTS



R19

2 pcs.



R12

2 pcs.



R13



R167

6 pcs.



R168

6 pcs.



-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部品

COLOURS



BARVY



FARBEN



PEINTURE

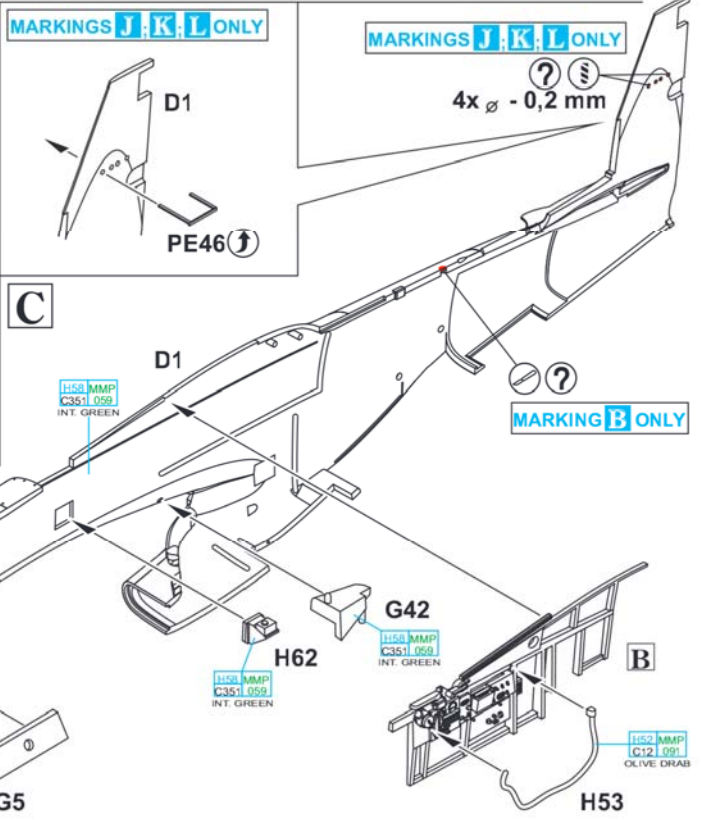
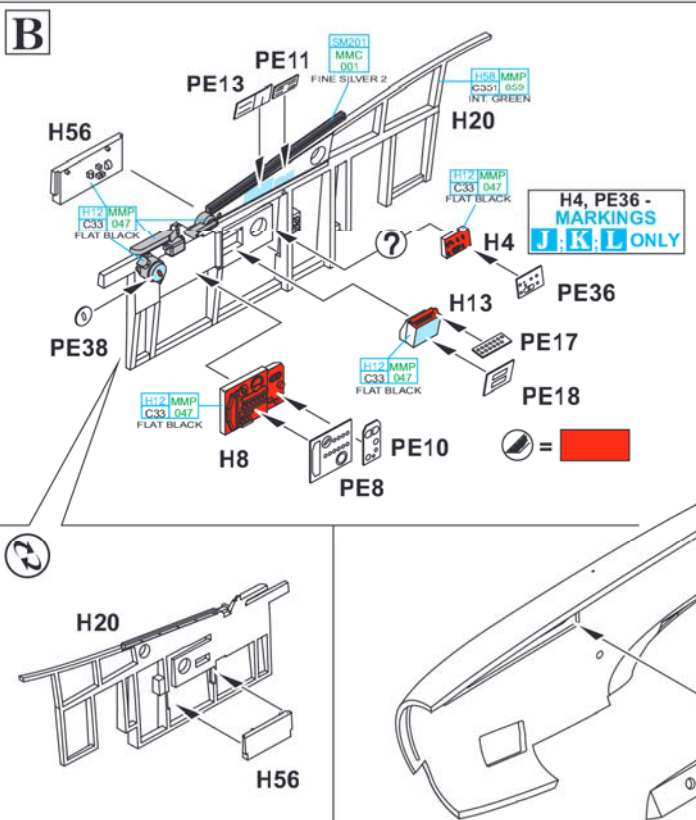
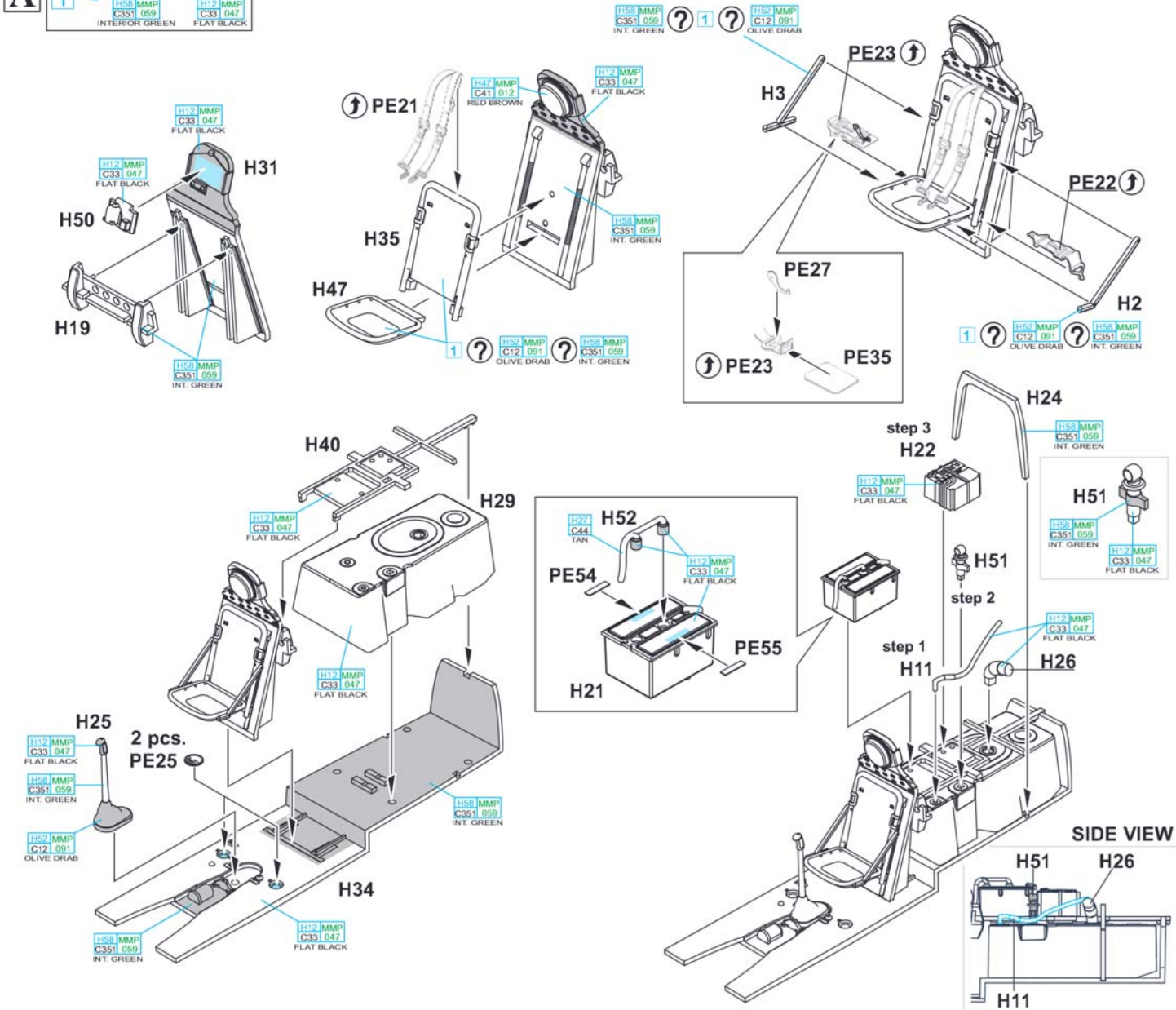


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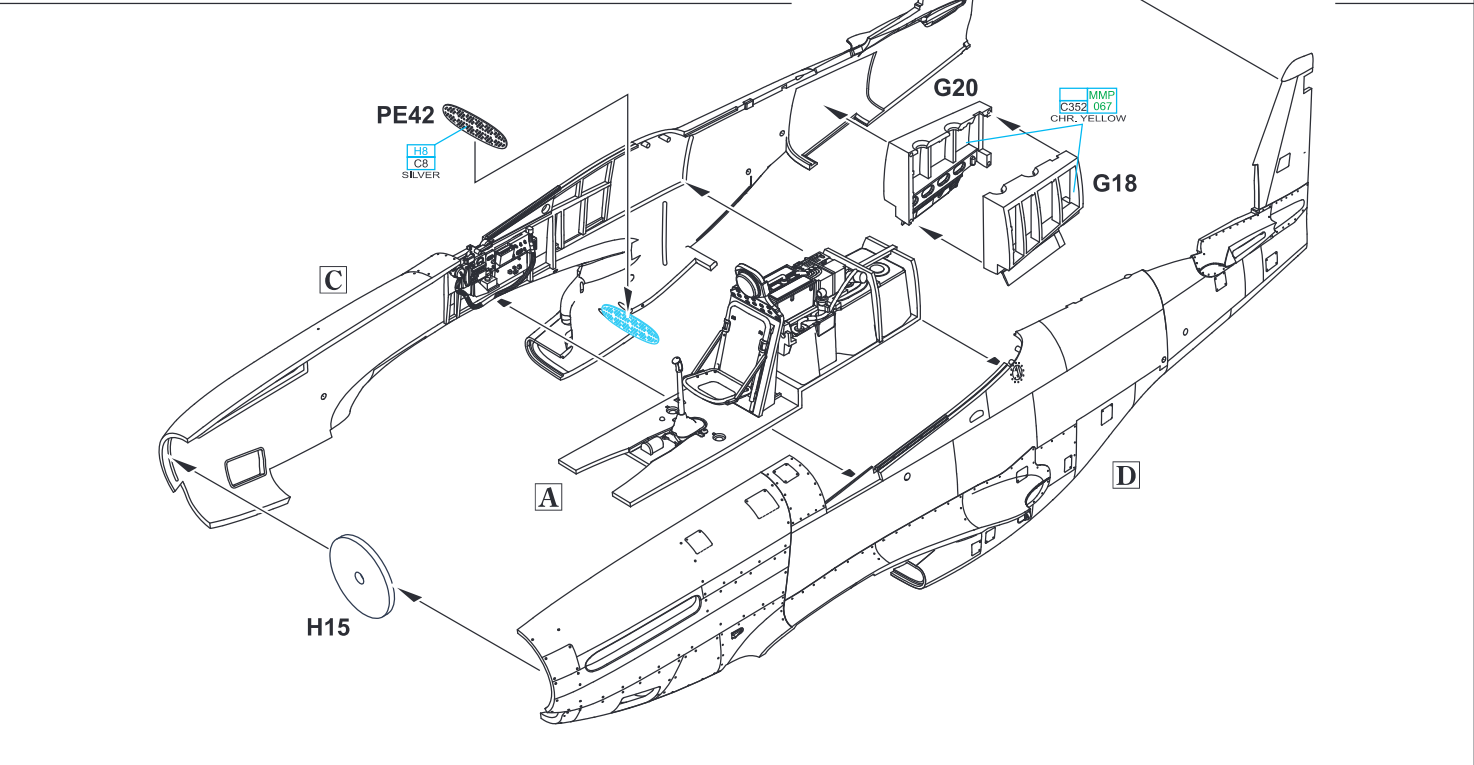
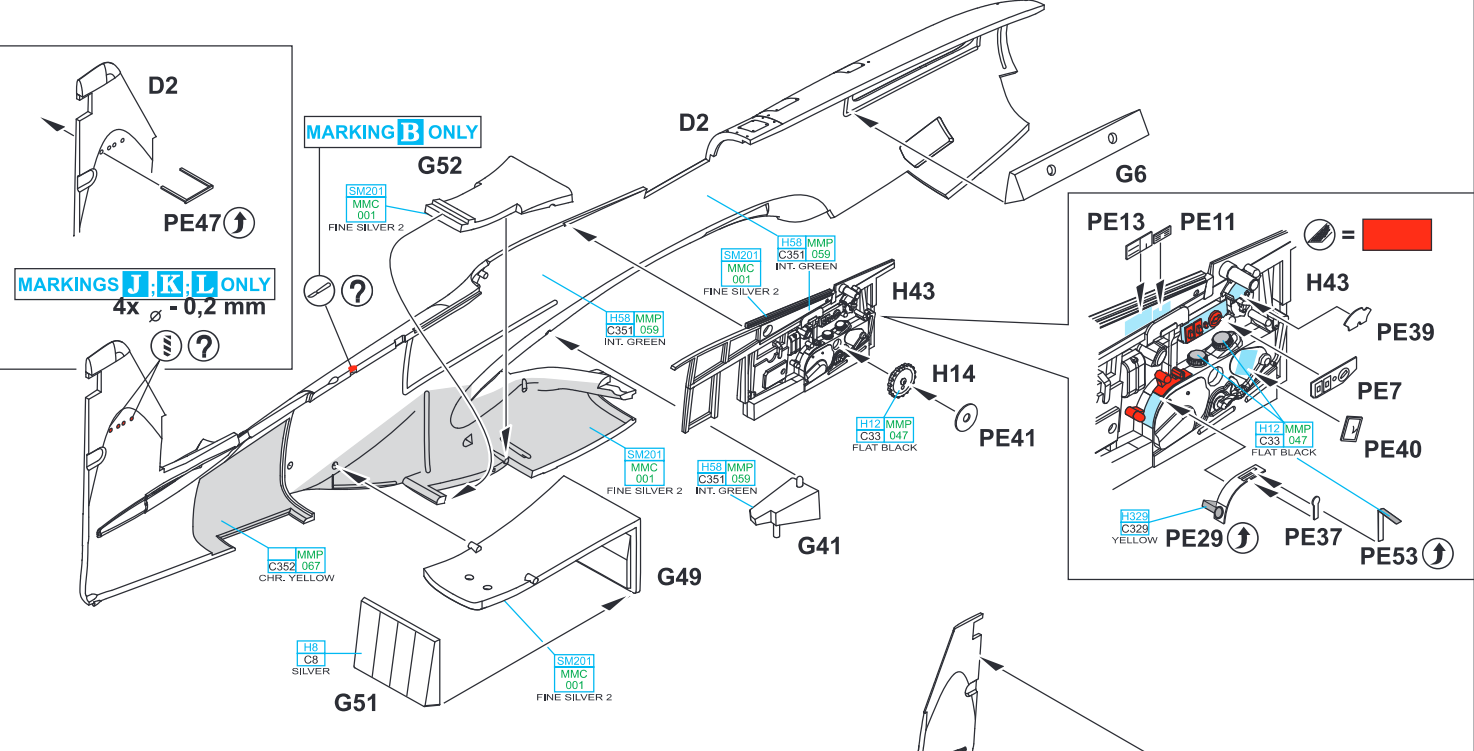
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AQUEOUS	Mr.COLOR	PAINTS	
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H8	C8		SILVER
H12	C33	MMP-047	FLAT BLACK
H15	C65		BRIGHT BLUE
H27	C44		TAN
H37	C43		WOOD BROWN
H47	C41	MMP-012	RED BROWN
H52	C12	MMP-091	OLIVE DRAB
H58	C351	MMP-059	INTERIOR GREEN
H77	C37	MMP-040	TIRE BLACK
H90	C47		CLEAR RED
H91	C48		CLEAR YELLOW

GSI Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H94	C138		CLEAR GREEN
H316	C316	MMP-104	WHITE
H327	C327	MMP-101	RED
H328	C328		BLUE
H329	C329		YELLOW
	C135	MMP-018	RUSSIAN GREEN
Mr.METAL COLOR		METALLICS	
	MC21	MMM-001	DARK IRON
Mr.COLOR SUPER METALLIC		METALLICS	
	SM201	MMC-001	SUPER FINE SILVER
	SM203		SUPER IRON

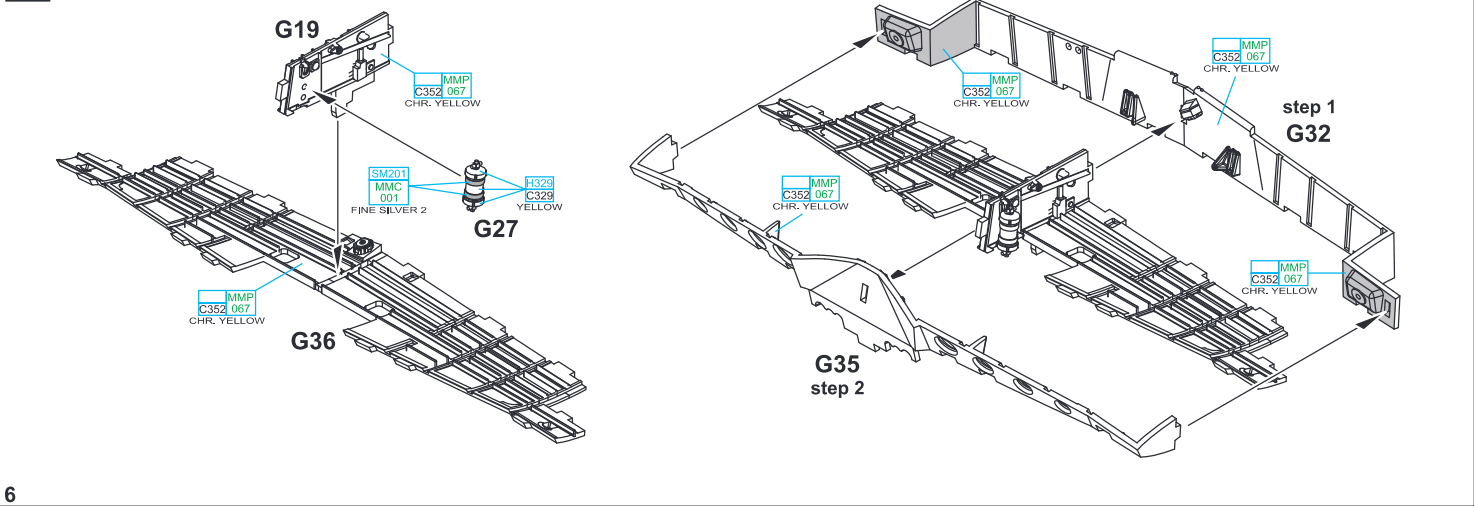
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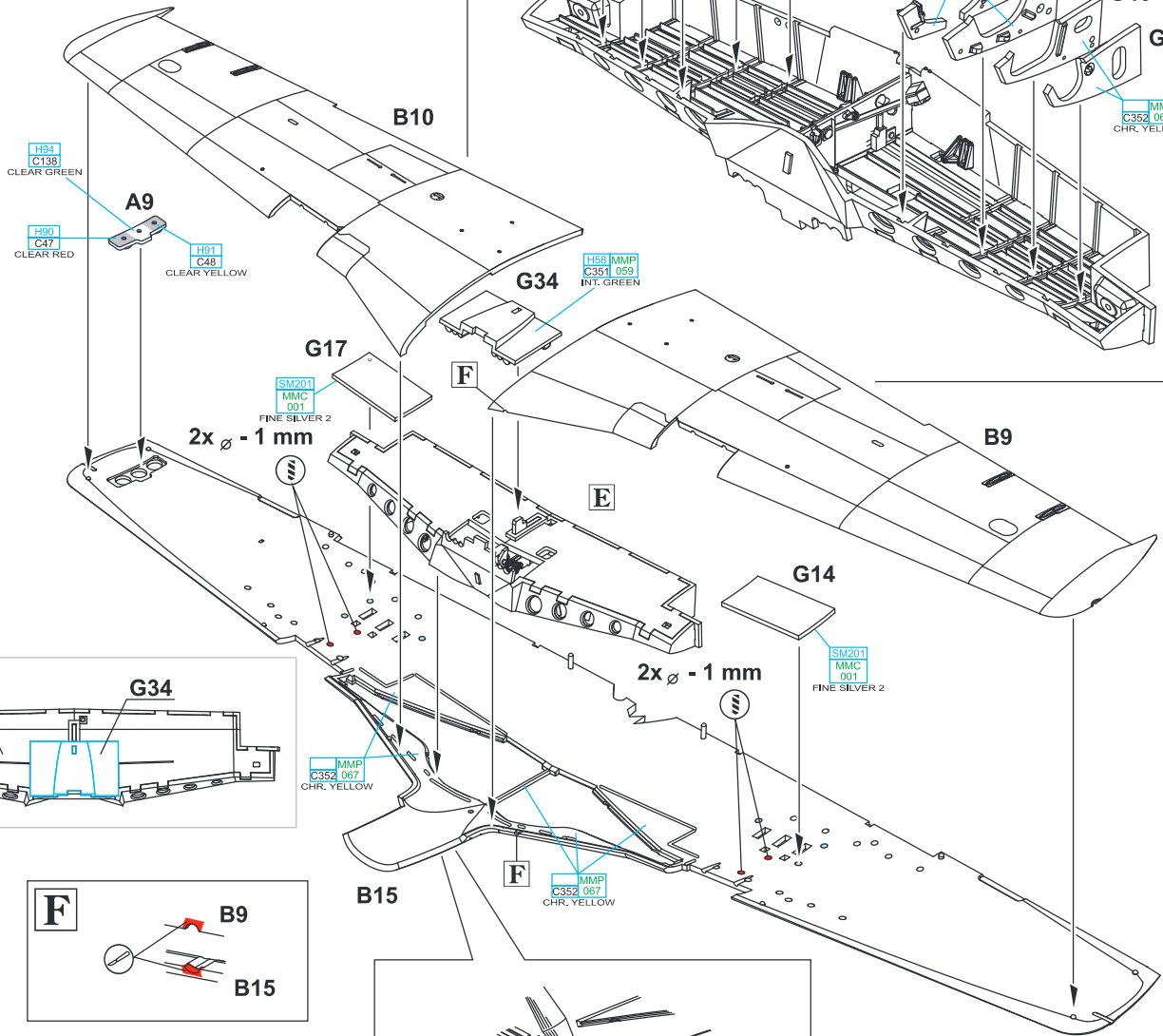
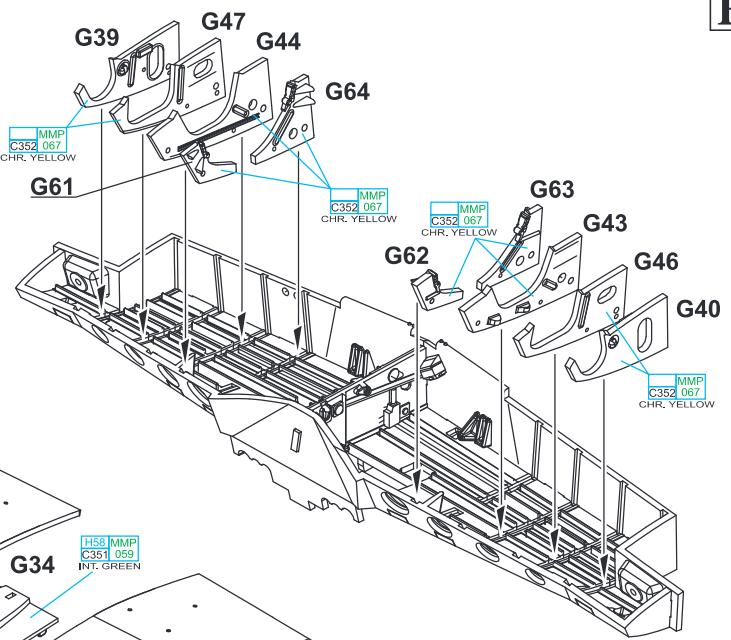
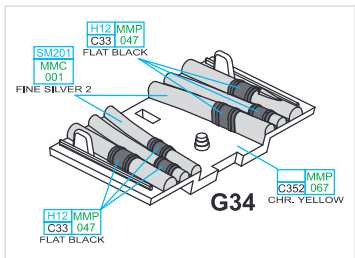


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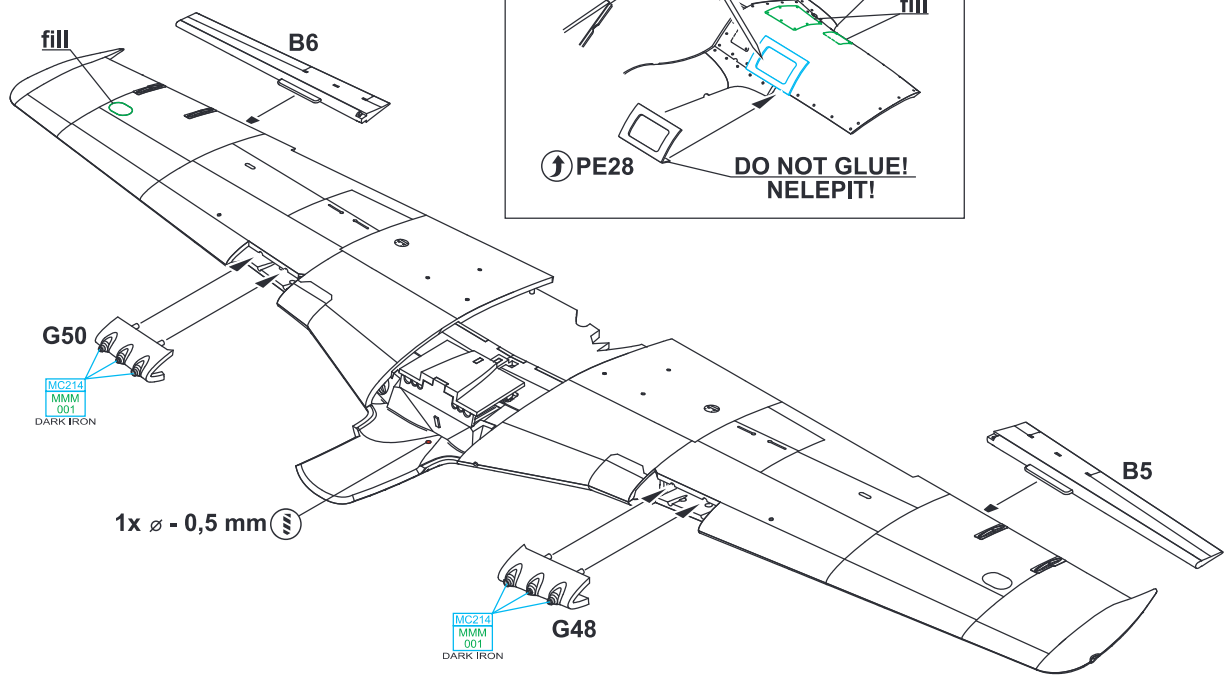
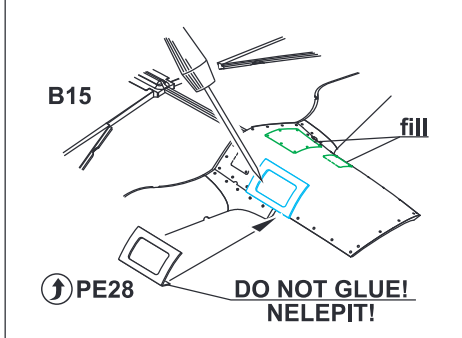
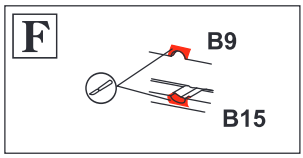
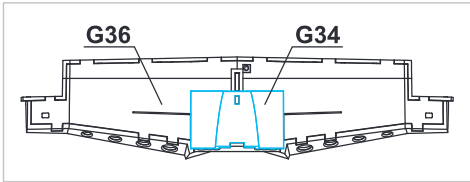


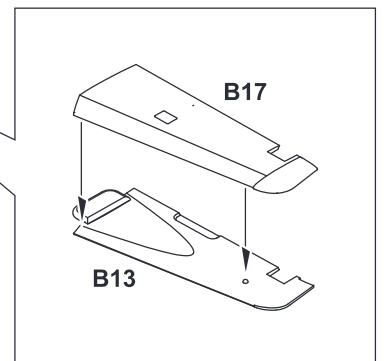
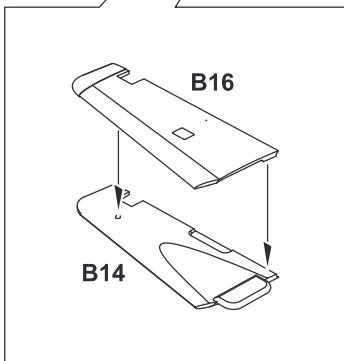
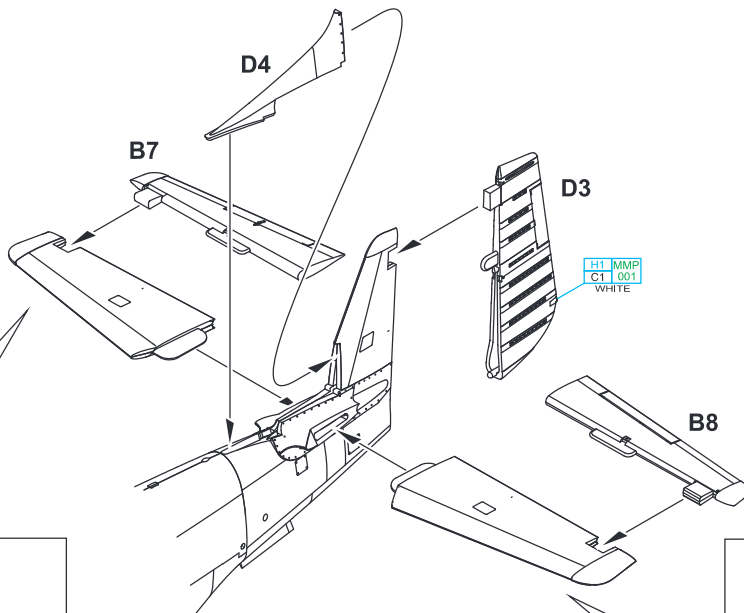
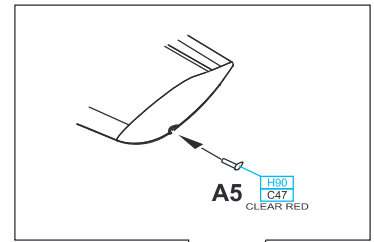
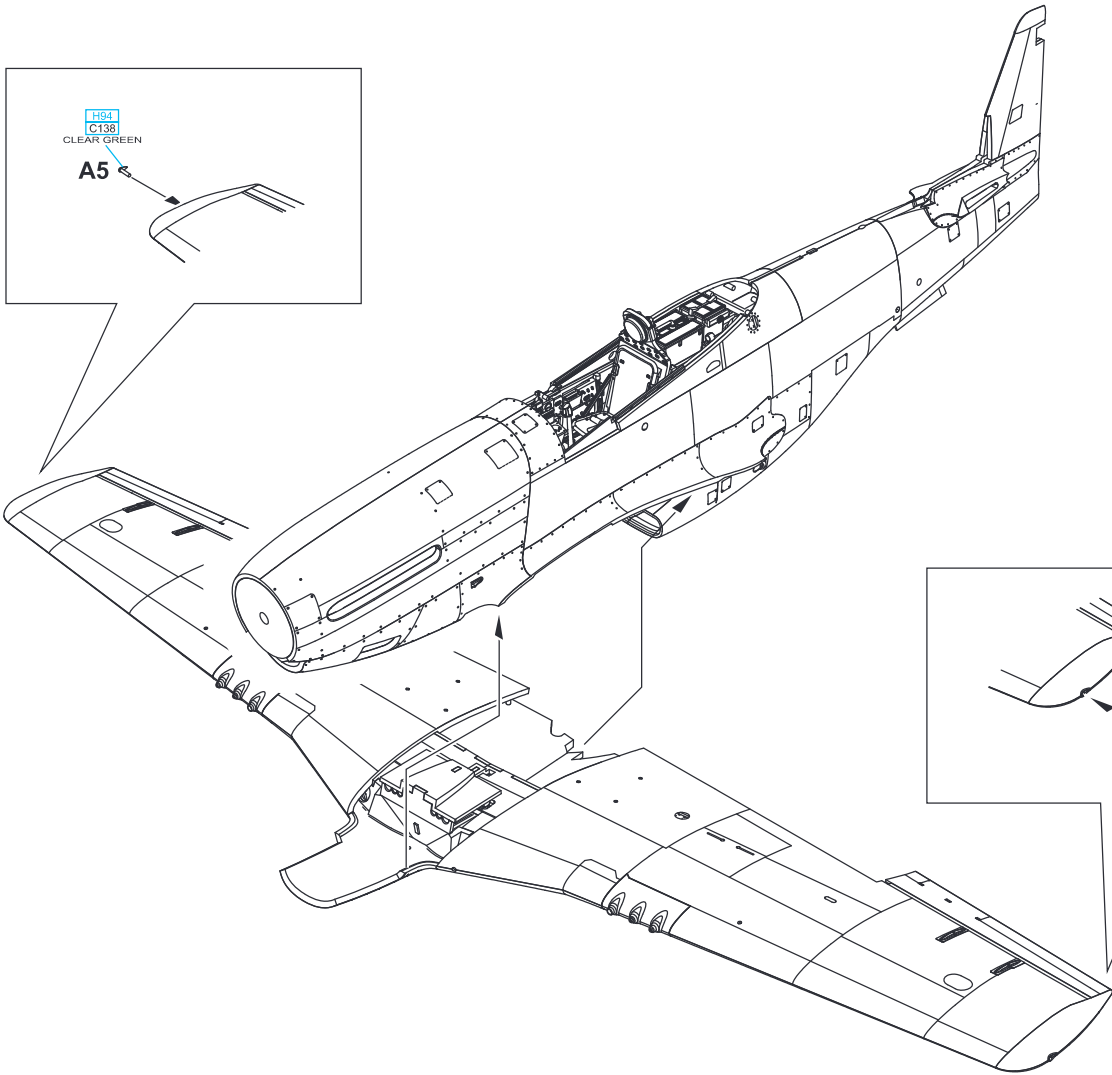
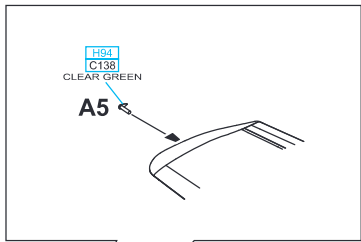
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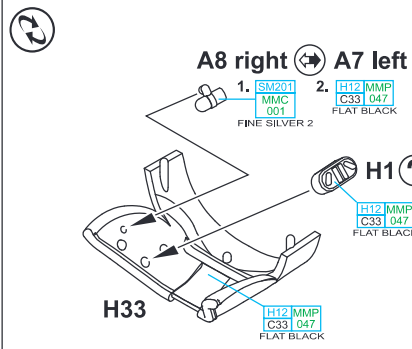
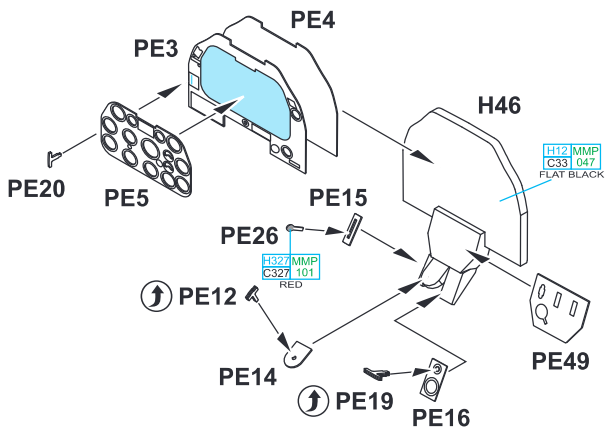




UPPER VIEW

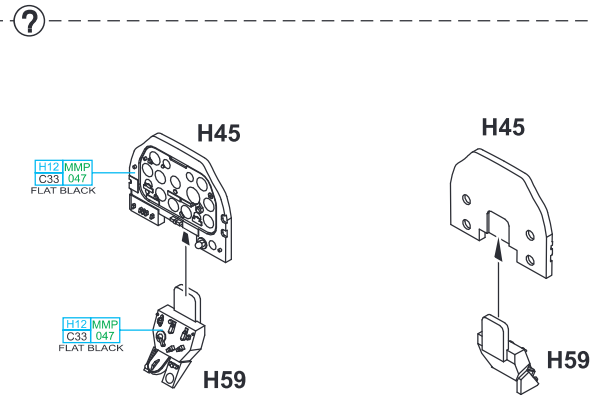
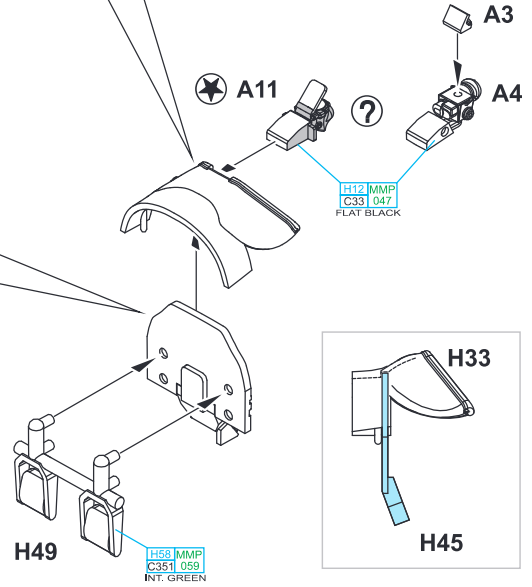




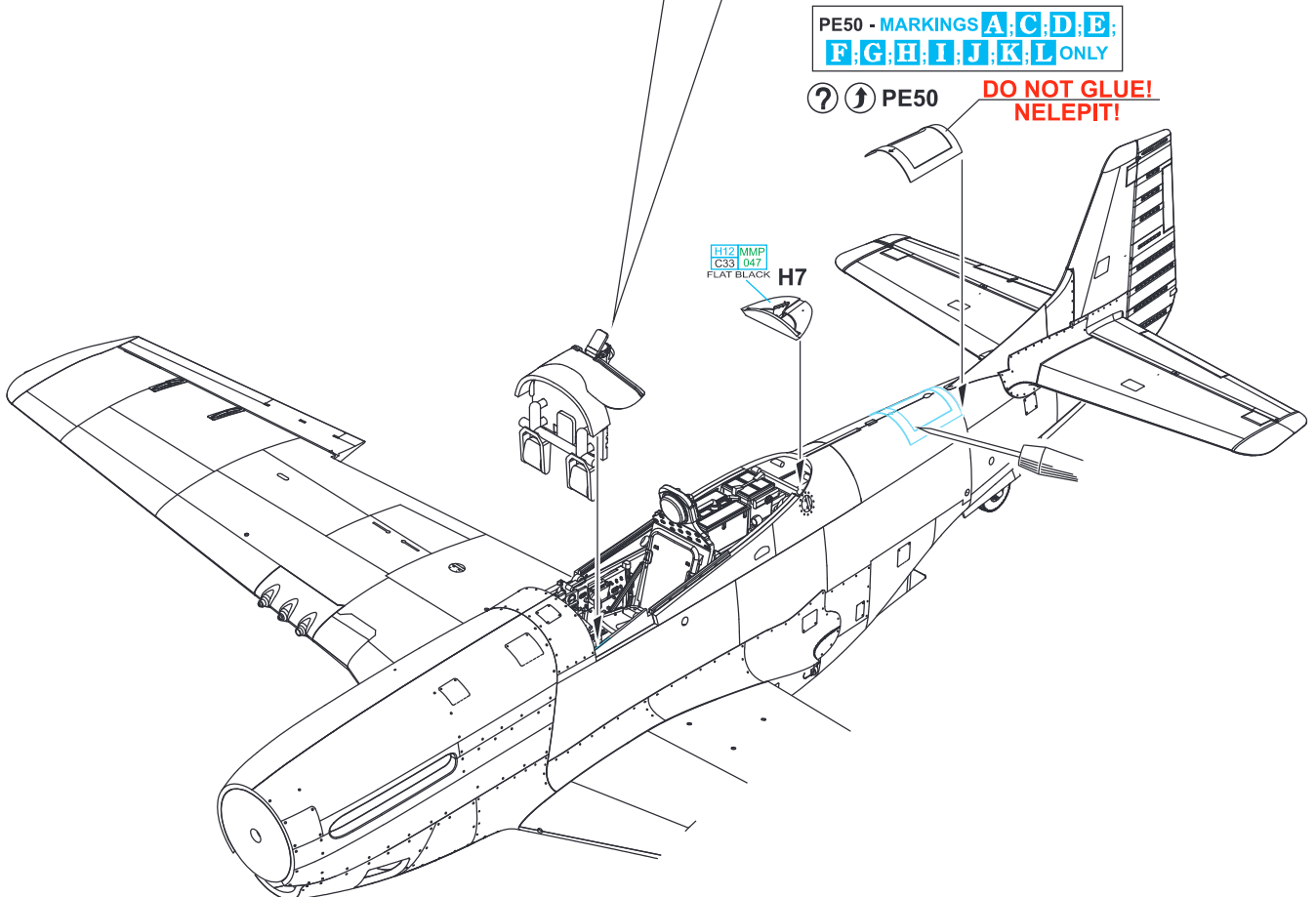


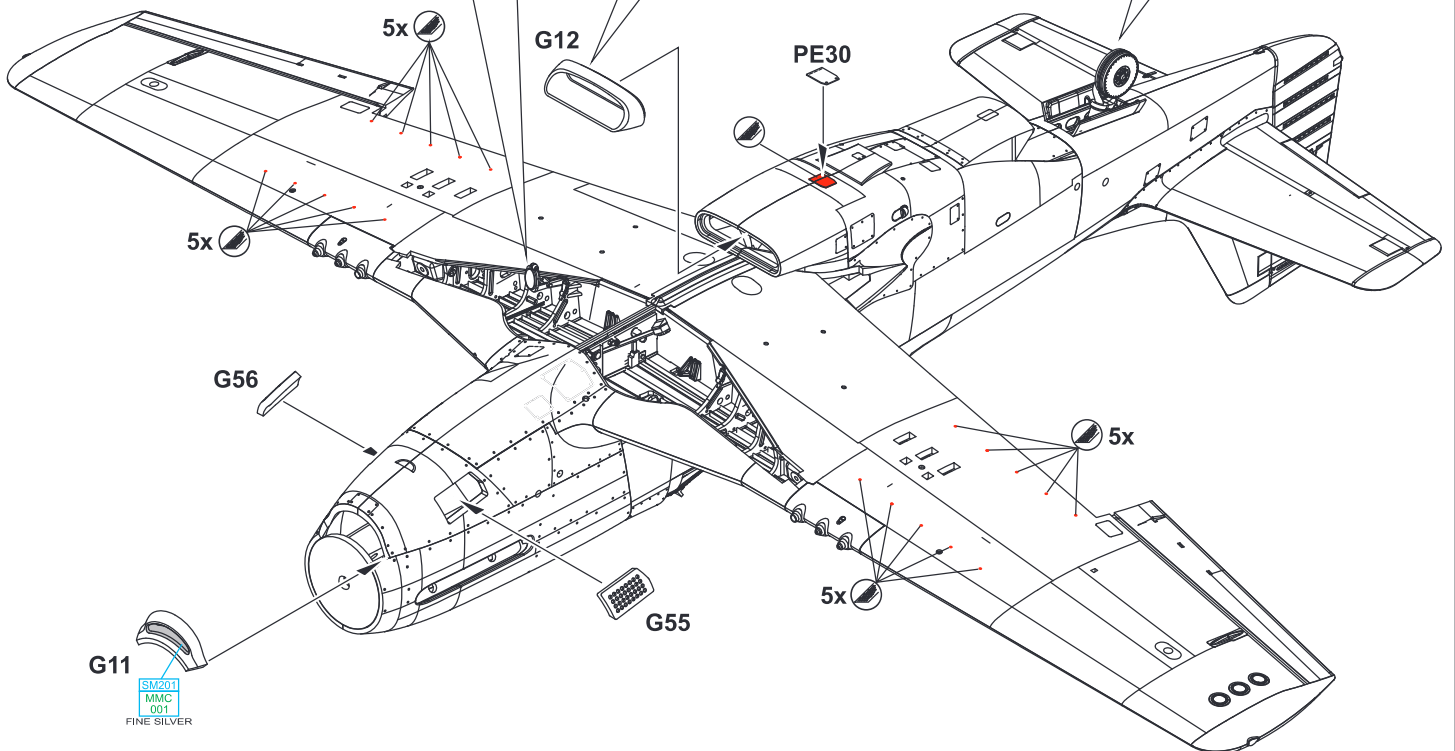
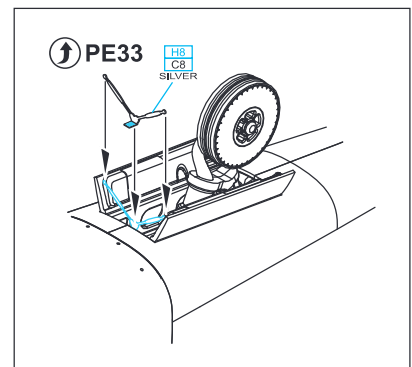
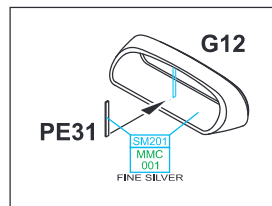
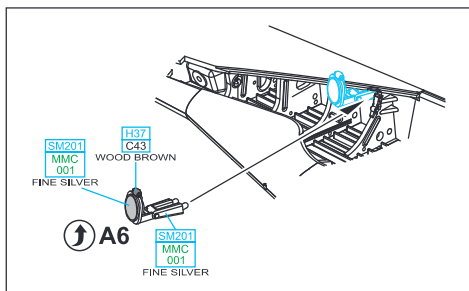
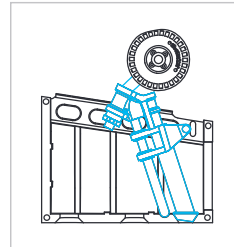
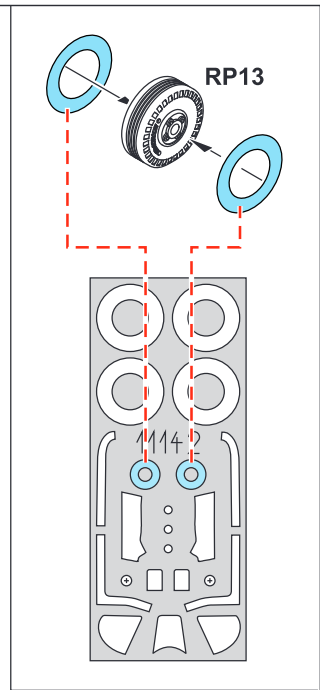
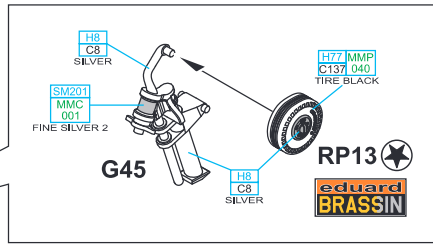
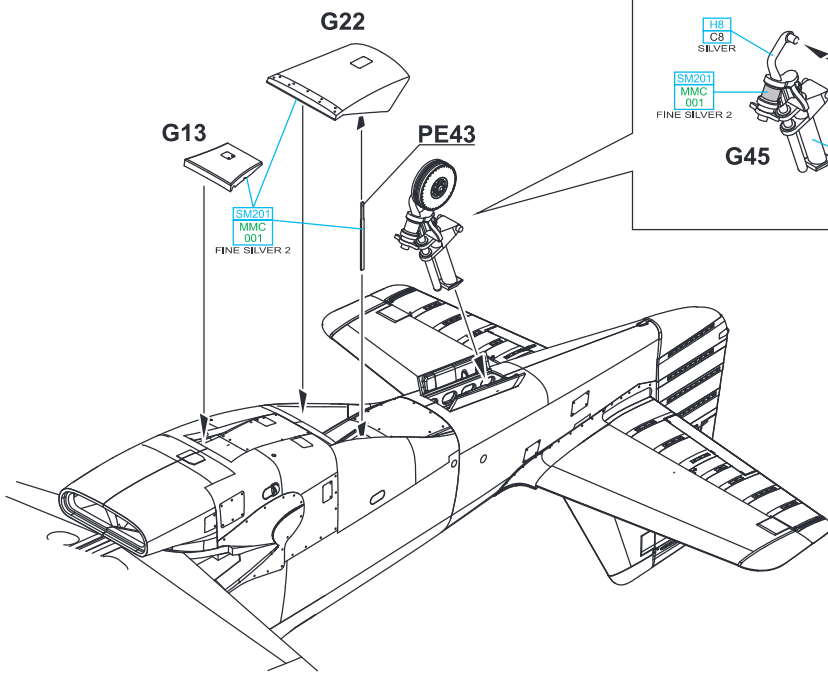
H1 - MARKINGS  
A, F, I, J, K, L  
ONLY

A3, A4 - MARKINGS A, F, I, J, K, L  
A11 - MARKINGS B, C, D, E, G, H

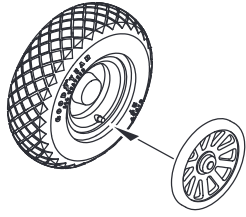


OPTIONAL: decal 98, 99, 100, 101, 102

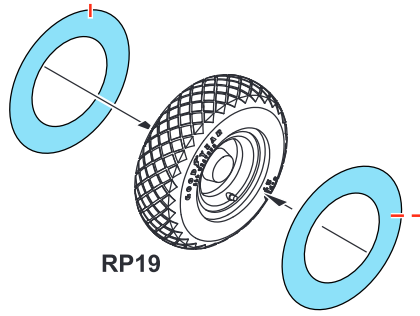




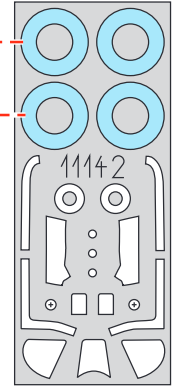
★ RP19



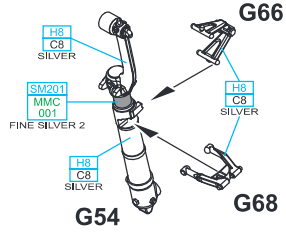
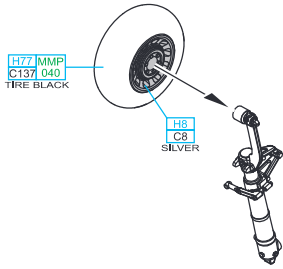
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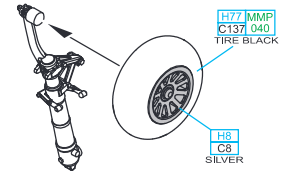
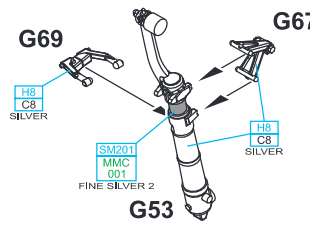
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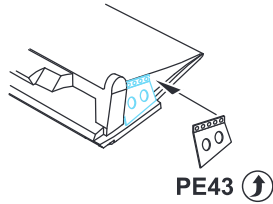
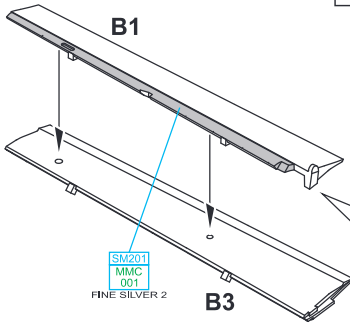
**G**



**H**



**I**



**J**

