

WINGNUT WINGS



LVG C.VI

1/32 Scale

After a few mostly unsuccessful designs of their own, LVG (Luft-Verkehrs-Gesellschaft) spent much of the Great War license building aircraft from more successful companies, like Albatros' D.II, C.III and Gotha's G.IV. It was not until early 1917 that one of their designs, the C type reconnaissance and artillery spotting C.V, was acceptable for production in any serious numbers. The success of the LVG C.V design led to the lighter and improved C.VI model depicted here.

The C.VI was constructed along the same lines as the C.V with a plywood covered fuselage and fabric covered wings and tail plane. Like all C type aircraft it was armed with two machine guns, one firing through the arc of the propeller and controlled by the pilot and the 2nd on a flexible mount in the observer's position.

The prototype was first test flown in February 1918 and production aircraft entered frontline service in the middle of that year. The C.VI was highly regarded for its respectable climb rate, speed and maneuverability. Surviving LVG C.VIs flew on in foreign air forces and civil hands well into the 1930s and a number of aircraft were assembled in the 1920s to fulfill the demands of a burgeoning civil market. As a consequence of this post war use we are lucky to have surviving examples of this important aircraft today.

WW1 aircraft colours are contentious at the best of times and we have done our best to provide what we consider to be accurate painting information for this model. Fortunately the many period photos available and surviving examples have given us a reasonable amount of useable information. The plywood fuselage was usually painted dark red brown although some were left unpainted, as was much of the interior (see the painting guide on page 22 for tips on achieving a wood grain finish). Period photos confirm that some aircraft had additional camouflage paint applied which was usually sprayed on. The metal engine cowlings, nose fairing, wheel spoke covers and fuselage vents were grey green, as were the struts. Metal interior components and strut brackets were usually black. The wings and fabric tail plane surfaces were covered in pre-printed 5 colour lozenge camouflage material with rib tapes of pale clear doped linen.

Wingspan:	Length:	Max Weight:	Max Speed:
13 m (42.6 ft)	7.5 m (24.6 ft)	1340 kg (2955 lb)	165 kph (102 mph)
No. manufactured:	Production:	Engine:	Ceiling:
approximately 1003	Oct. 1917 to Jan. 1919	Benz Bz.IV	6000 m (19685 ft)
Armament:			
7.92mm LMG 08/15 'Spandau' - 7.92mm Parabellum LMG14 or LMG14/17 - Grenades, hand dropped bombs			
References:			
Windsock Datafile 17 LVG C.VI, P.M.Grosz, 1989 - Over the Front Volume 2 Number 4, Winter 1987-88 Memorial Flight (http://memorial.flight.free.fr) - 1914-1918 Aviation Heritage Trust - Private collections			

LVG C.VI

1/32 Scale













Warning: Choking hazard. Keep small parts and plastic bags away from children. Use glue and paint in a well ventilated area. Always wear protective eyewear when cutting and a protective mask when painting, gluing and sanding. Do not breathe dust from polyurethane resin parts (if included). Beware of sharp edges on metal parts.

Assembly: Read all the instructions carefully before starting assembly. Use glue intended for plastic models. Assemble metal and resin parts (if included) using Cyanoacrylate (CA) or epoxy glue. Before assembly select a marking option and note optional parts required in instructions.

Painting: Only use paints suitable for plastic model kits.

Decals: Cut out each decal as required. Soak in warm water for 15 seconds. Slide off backing paper onto gloss painted surface of model. For large decals it is helpful to apply a drop of water to the area they are being applied to. This will make it easier to maneuver them into the correct position

SYMBOLS

 Construction Step	 Choose	 Attention	 Remove
 Part Number	 Do Not Cement	 Option	 Drill
 Decal	 Cement For Metal	 Other Side	 Paint Colour

PAINT COLOURS

	All colours	Tamiya	Humbrol	Misterkit
a	Brass	X12	54	
b	Gun metal	X10	27004	
c	Aluminium	XF16	27001	
d	Semi Gloss Black	X18	85	
e	Dark Wood	XF68	98	
f	Leather	XF52	62	
g	Light Blue	XF23(x1) + XF2(x1)	65	GC09
h	Matt Medium Grey	XF22	145	GC08
i	Light Grey	XF19	64	
j	Medium Grey-Green	XF71	78	GC04
k	Matt Red	XF7	60	
l	Matt Rust	XF9	113	
m	Matt White	XF2	34	
n	Light Wood	XF59	93	
o	Mauve	X16(x1) + XF52(x1)	68(x1) + 29(x1)	GC02
p	Steel	XF56	27003	
q	Clear Doped Linen	XF57	148	GC10
r	Matt Olive Green	XF58	123	GC06
s	Copper	XF6	12	

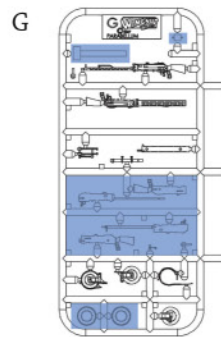
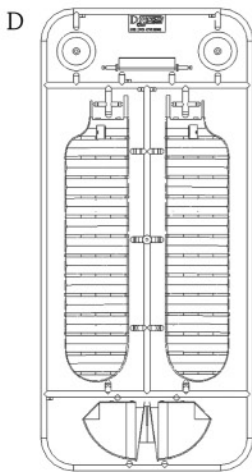
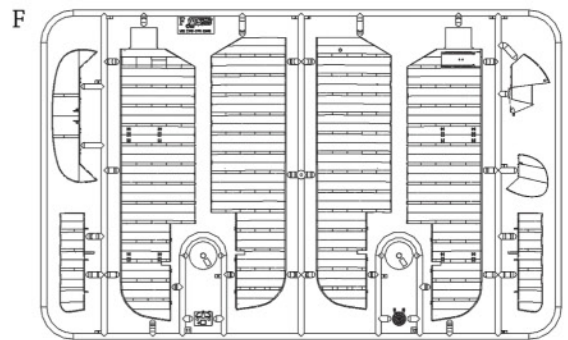
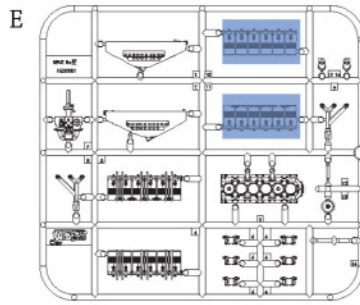
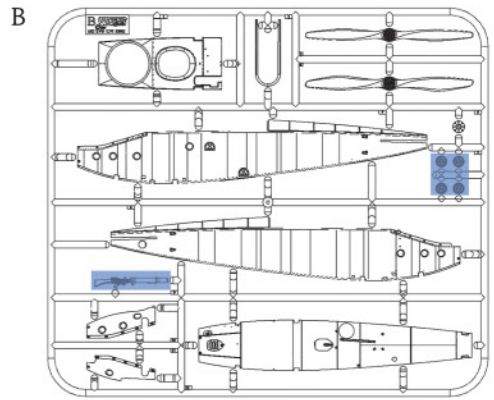
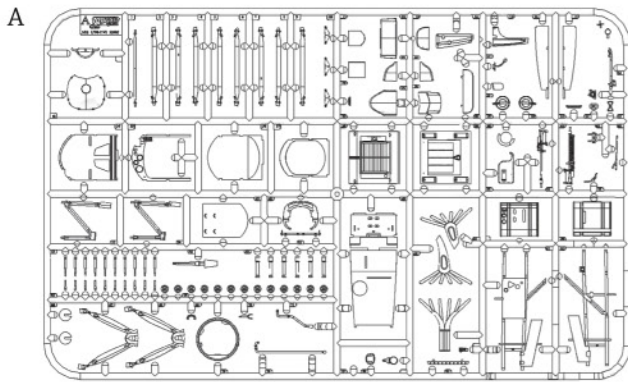
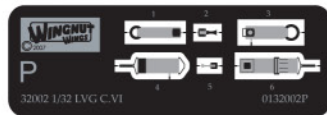
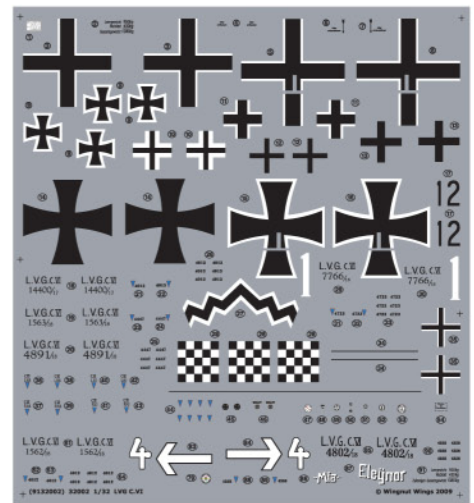


Photo Etch

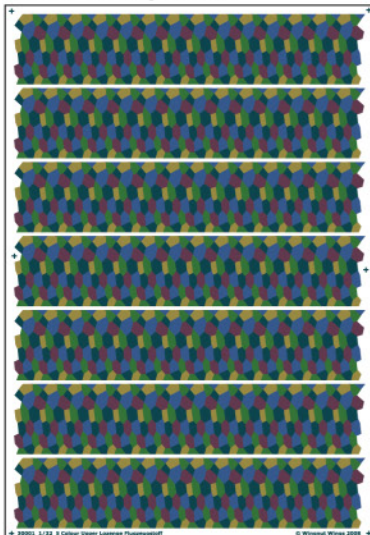


■ = Not Used

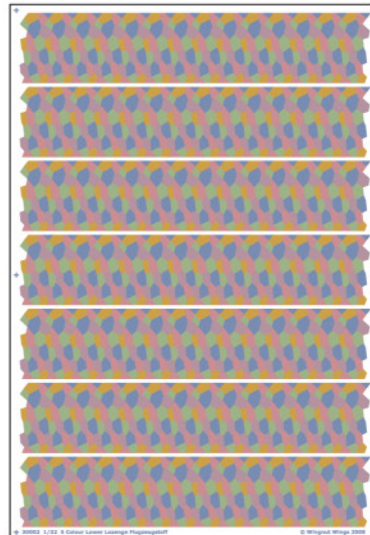
Decal Sheet



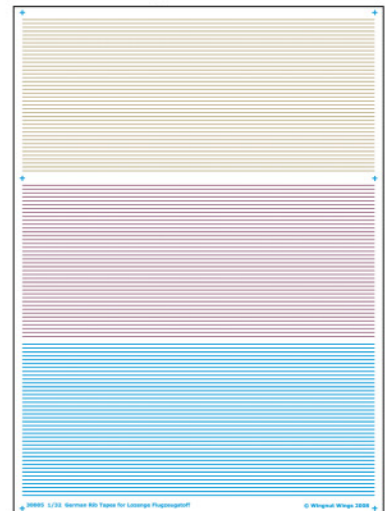
Decals - Lozenge Upper



Decals - Lozenge Lower



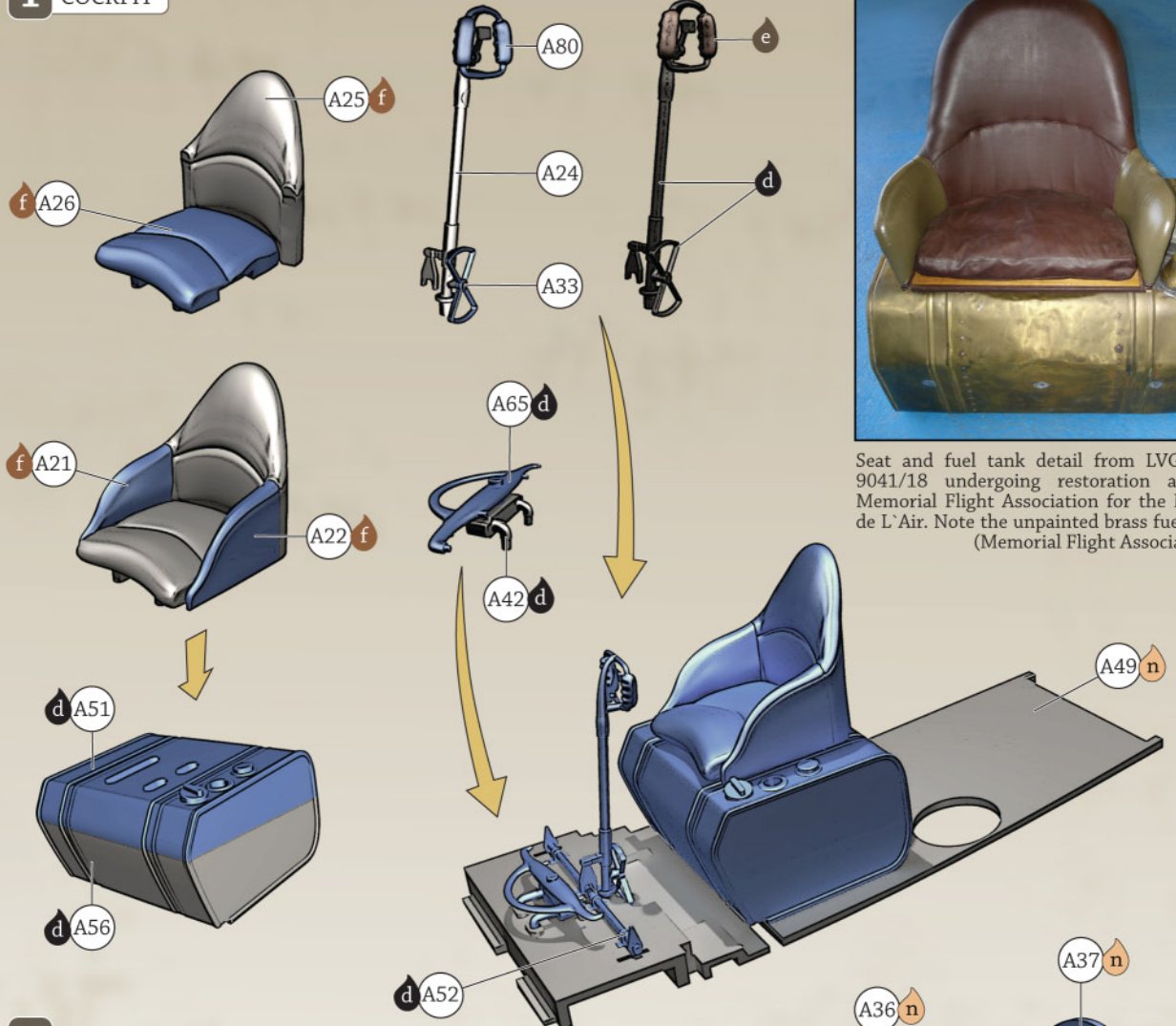
Decals - Rib Tapes



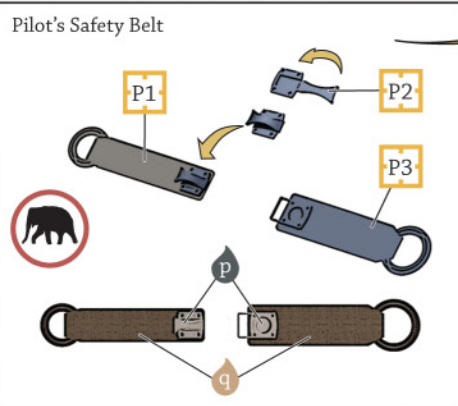
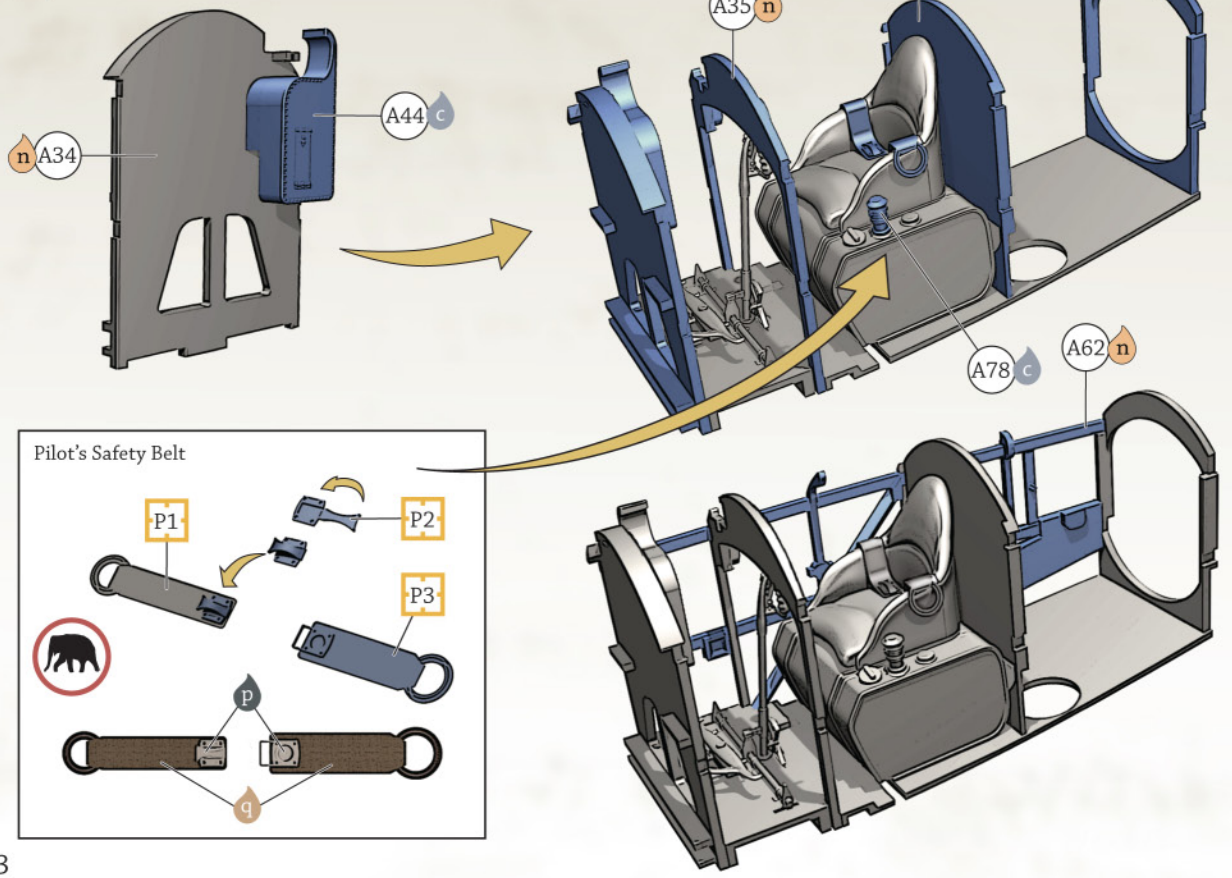
1 COCKPIT



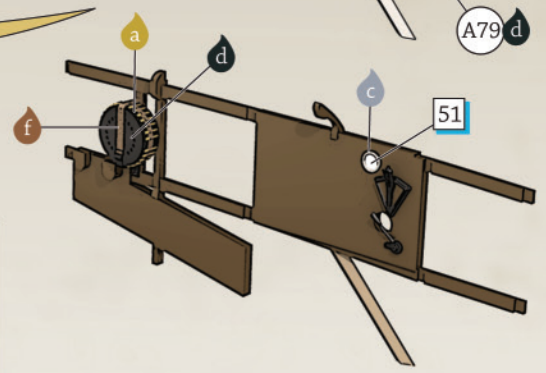
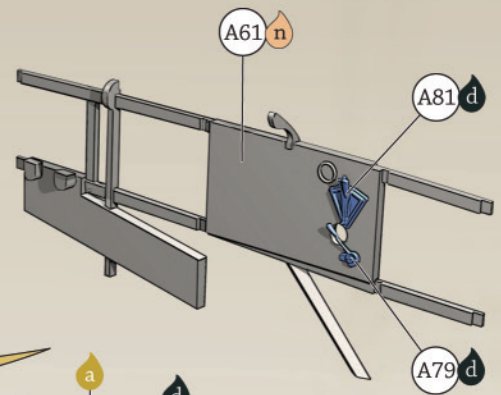
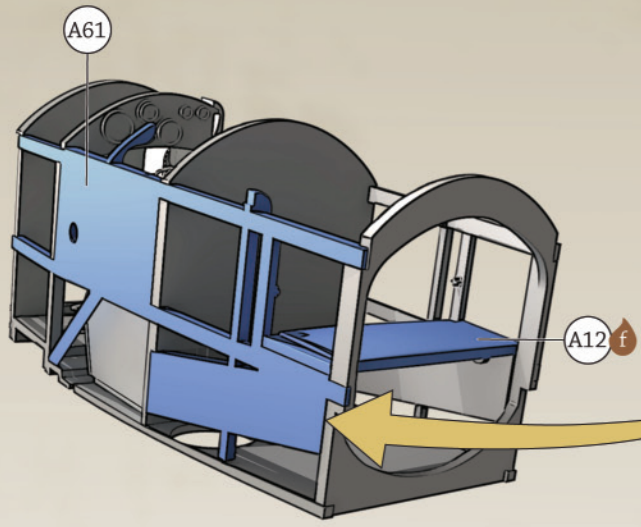
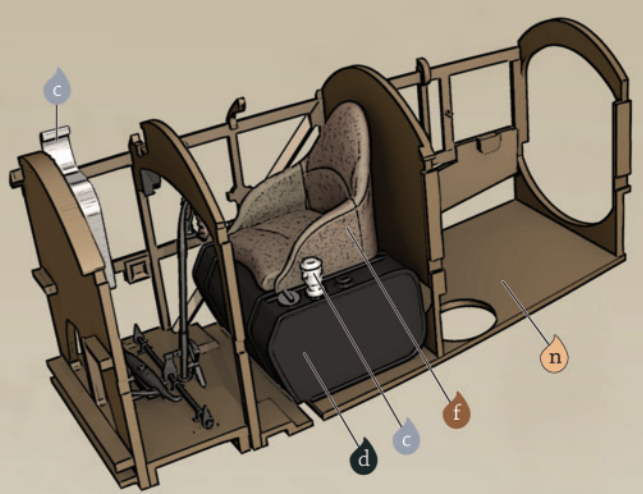
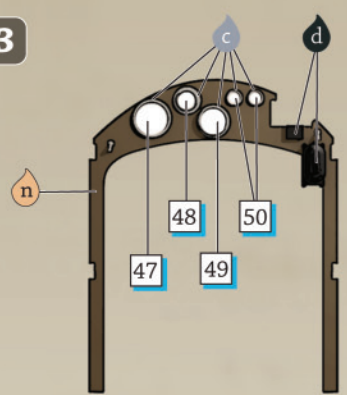
Seat and fuel tank detail from LVG C.VI 9041/18 undergoing restoration at the Memorial Flight Association at the Musée de L'Air. Note the unpainted brass fuel tank (Memorial Flight Association).



2

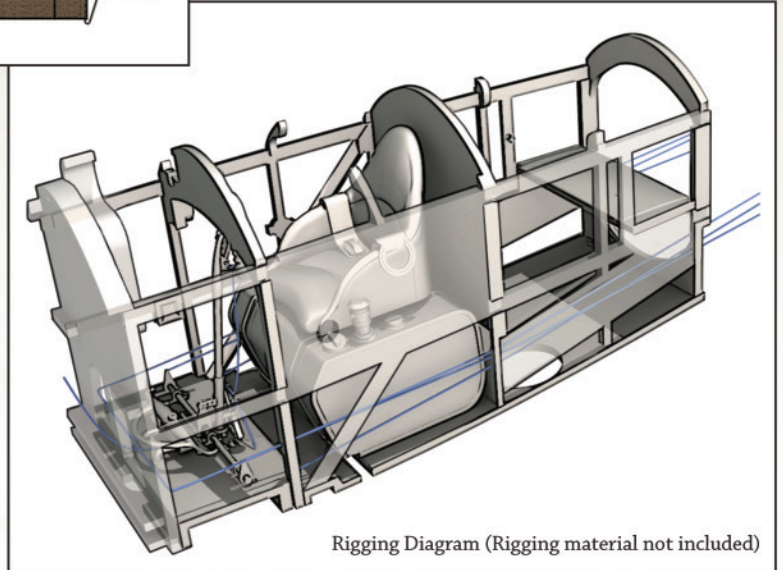
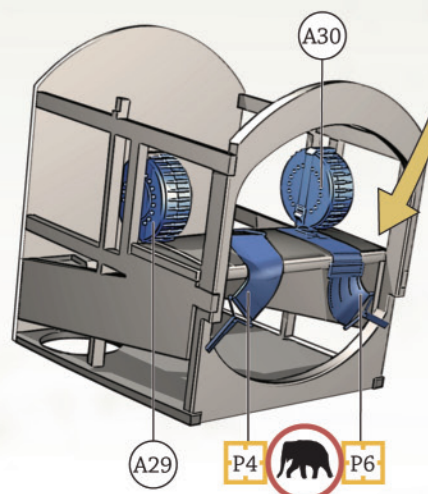
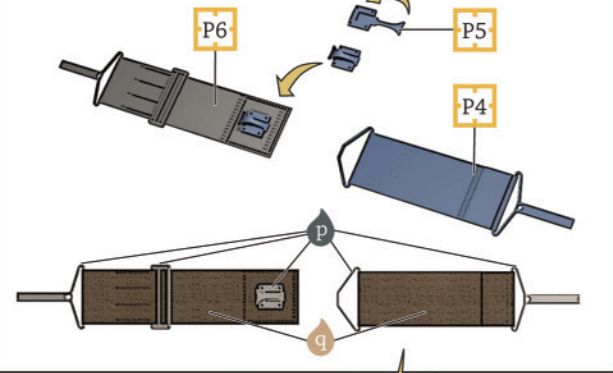


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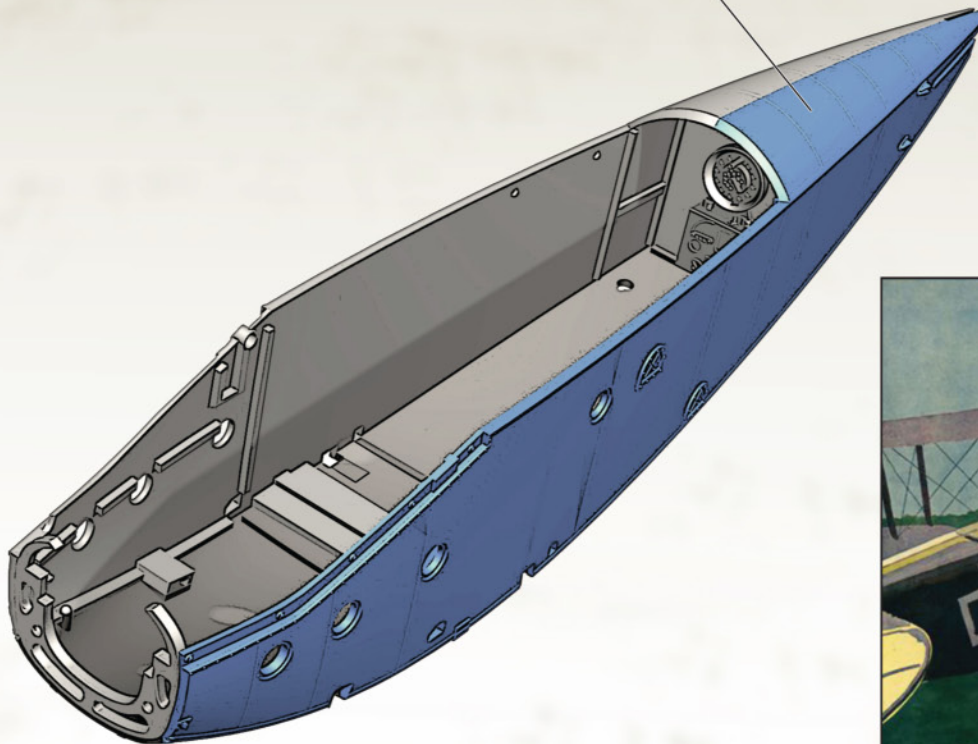
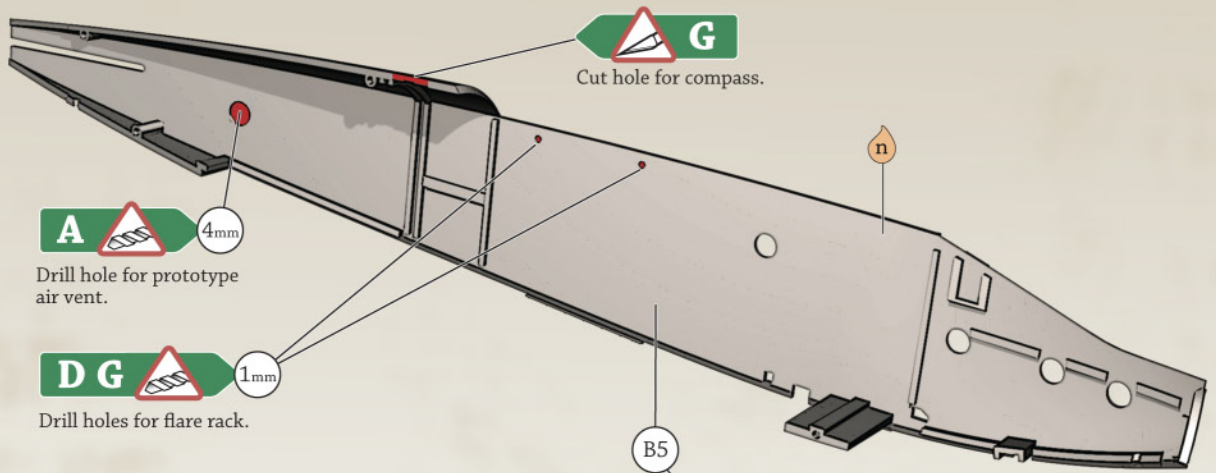
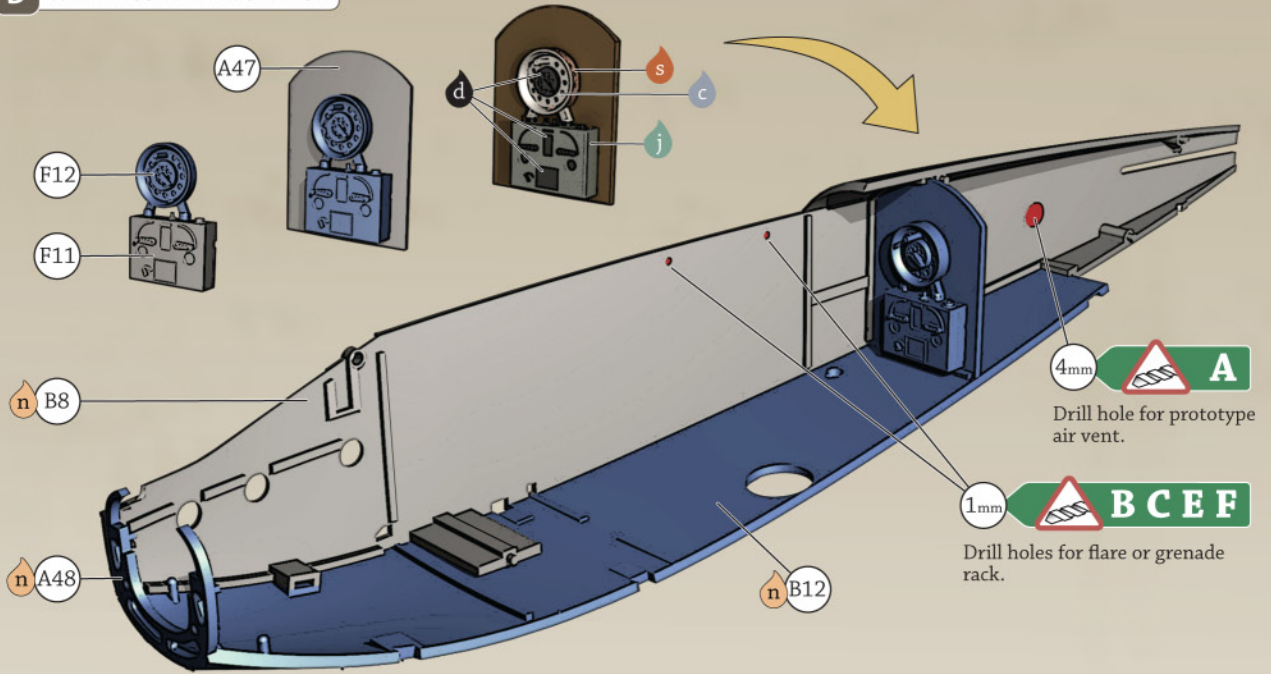


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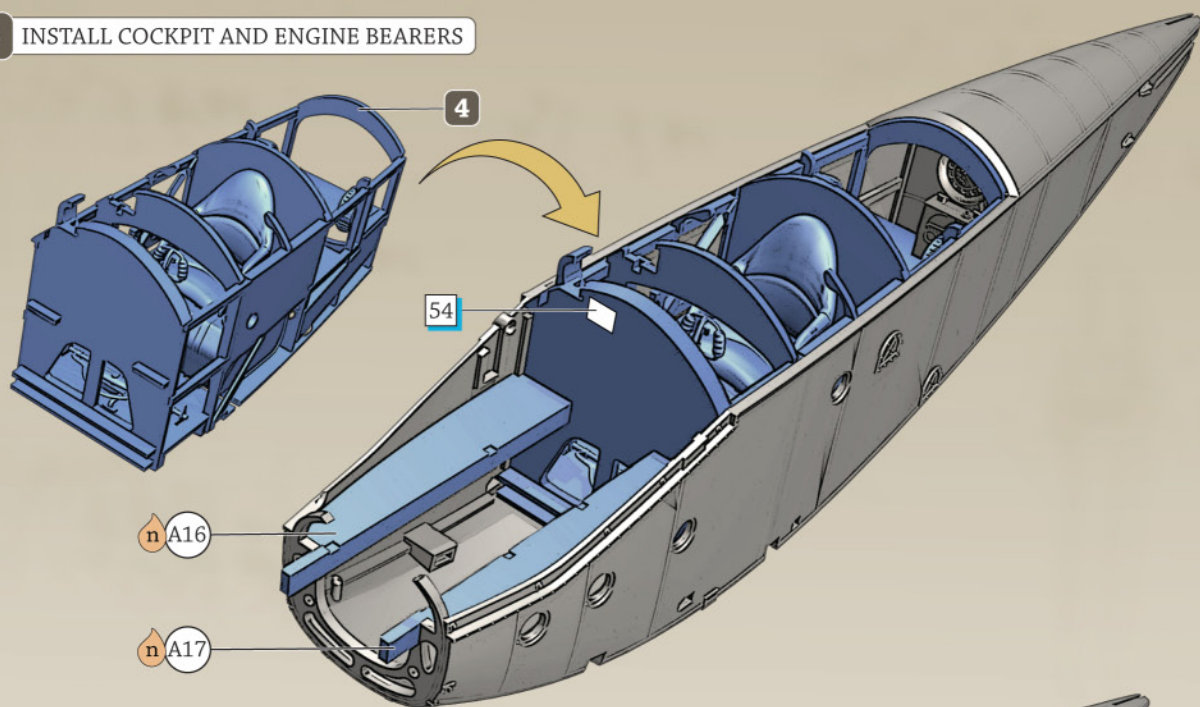
Observer's Safety Belt



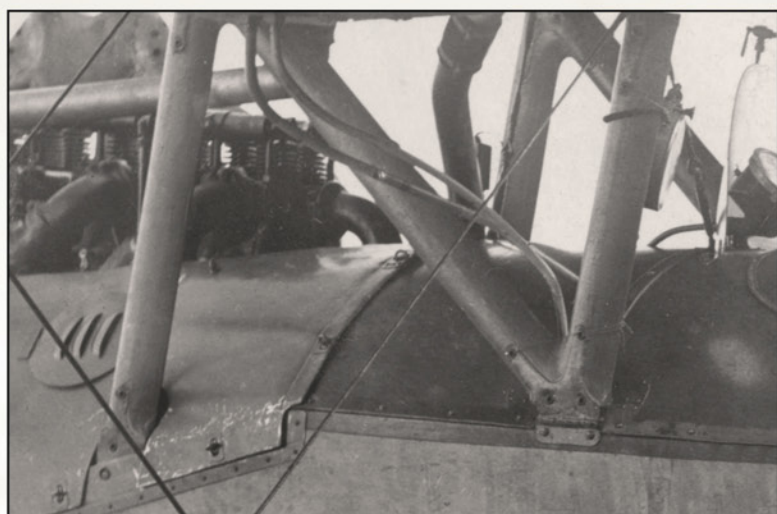
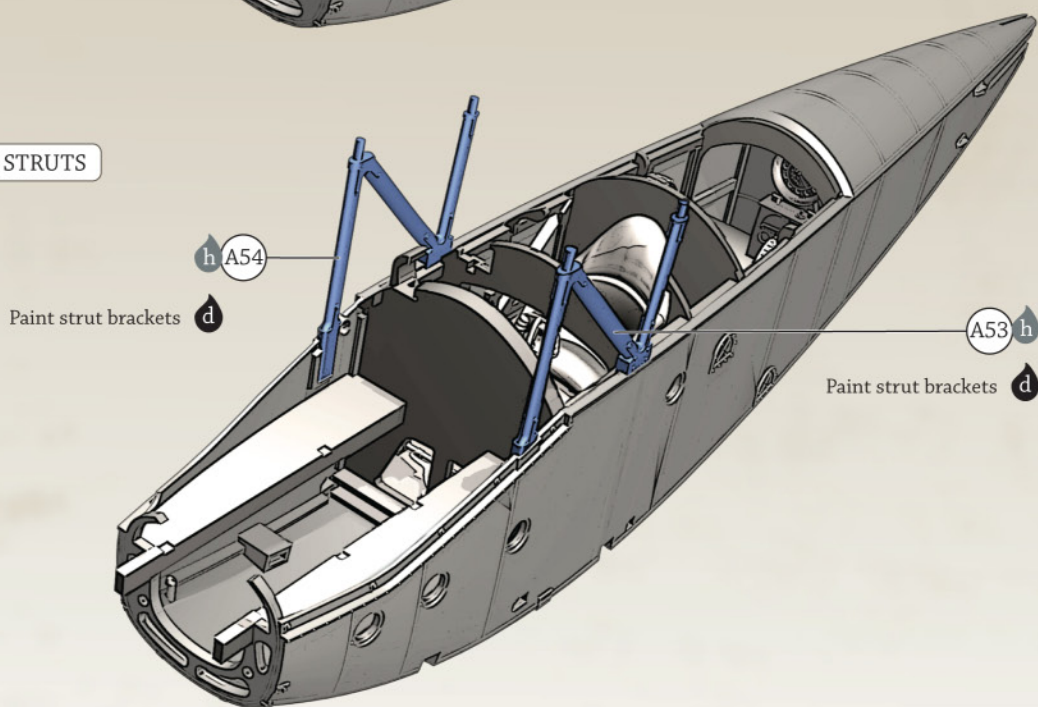
5 WIRELESS AND FUSELAGE



6 INSTALL COCKPIT AND ENGINE BEARERS

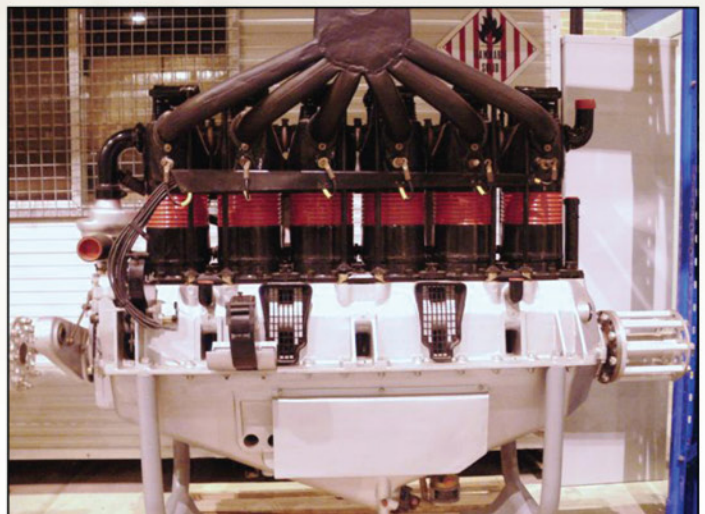
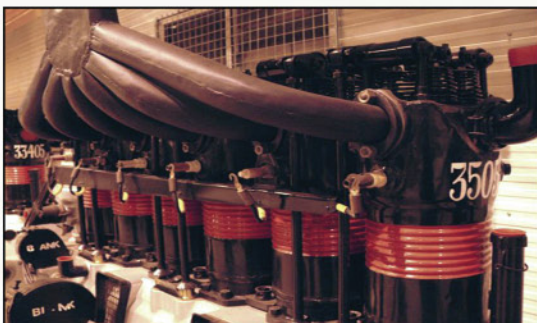
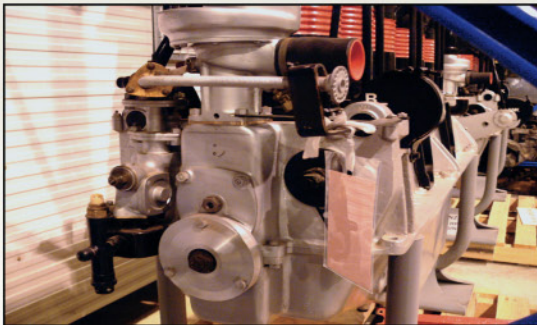
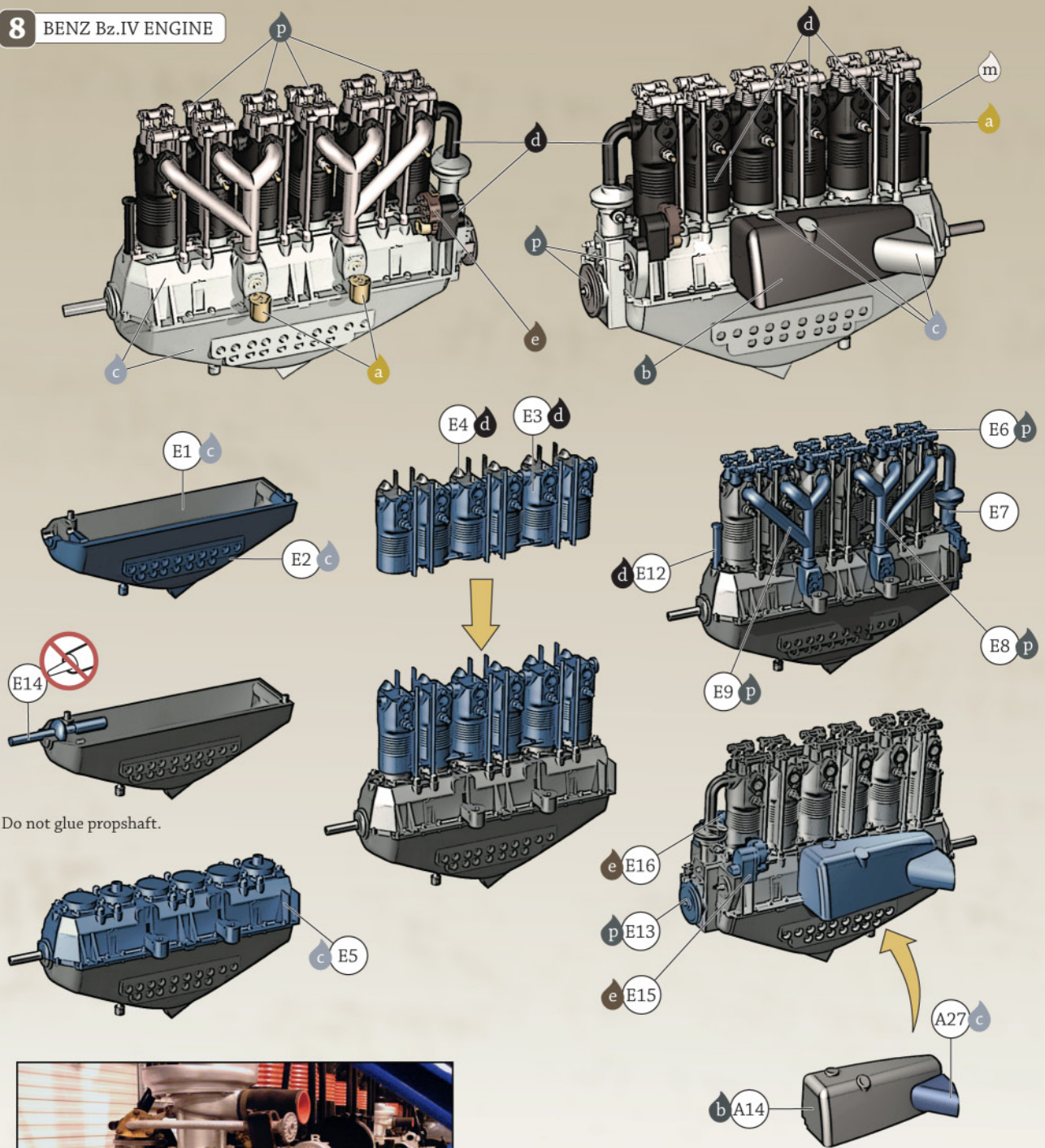


7 CABANE STRUTS



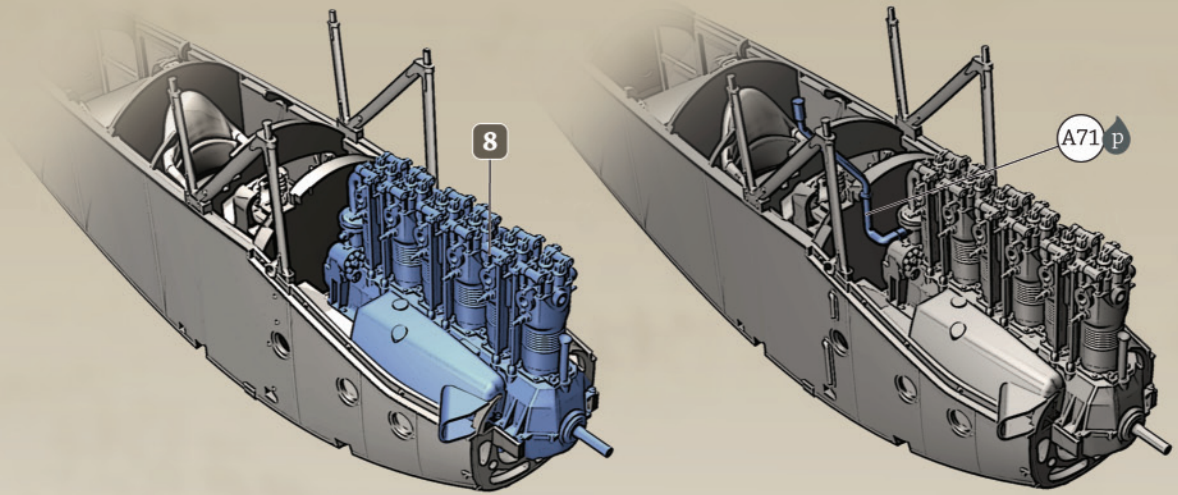
This close up of the cabane struts from LVG C.VI 4802/18 shows some useful details like the strut end brackets and fuel lines from the upper wing fuel tank.

8 BENZ Bz.IV ENGINE



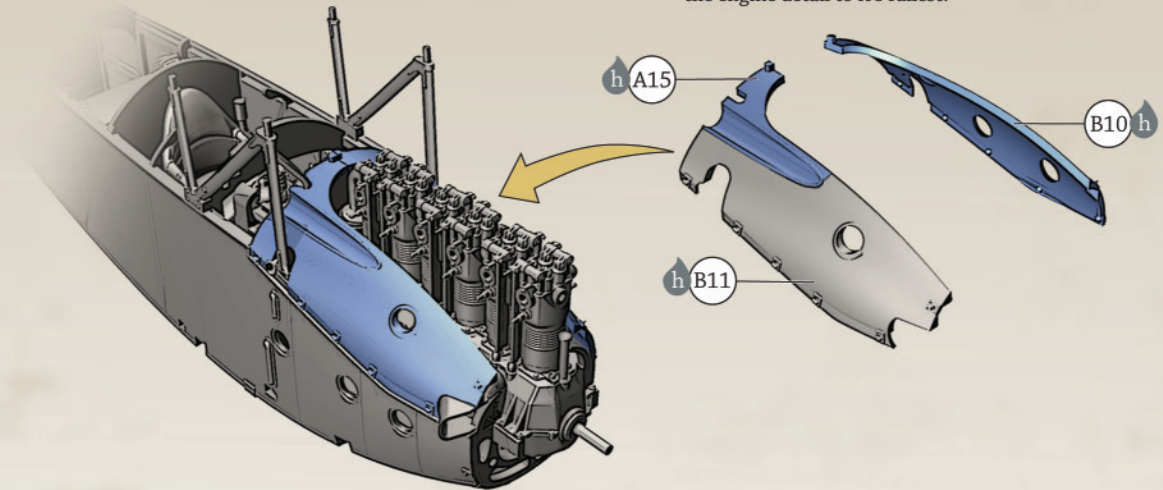
Benz Bz.IV engine details. Note the serial number, spark plug leads and attractively painted cooling fins.

9 ENGINE INSTALLATION

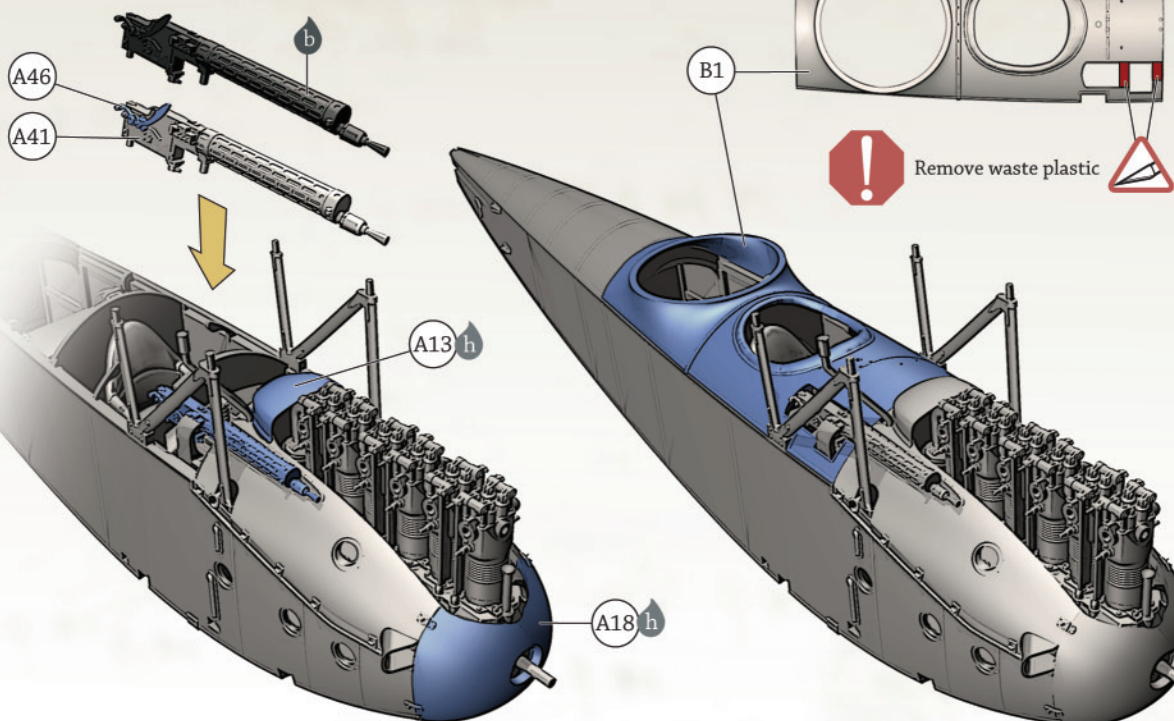


10 ENGINE COWLINGS

We recommend leaving these cowlings off to display the engine detail to its fullest.

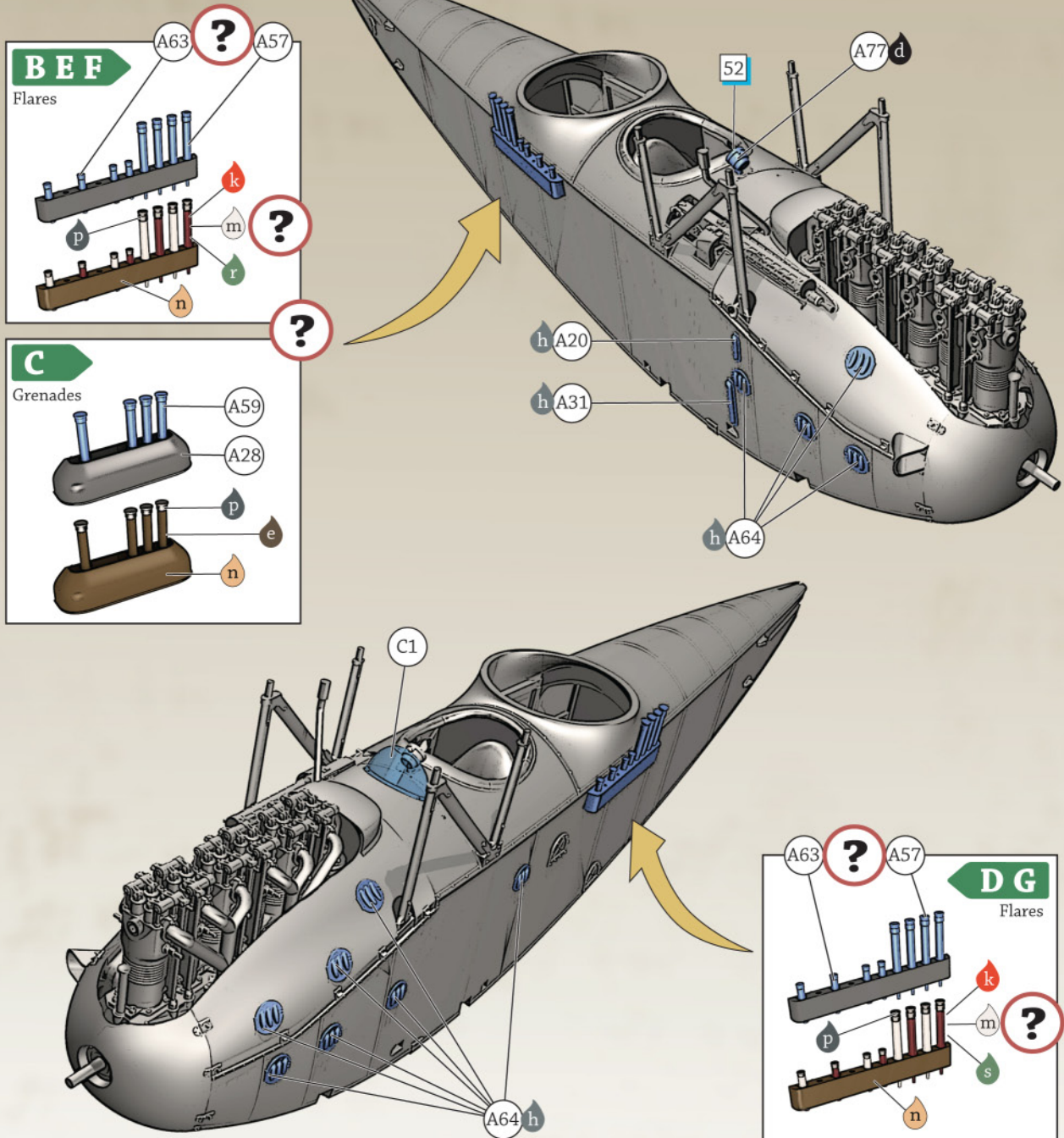


11 SPANDAU LMG 08/15



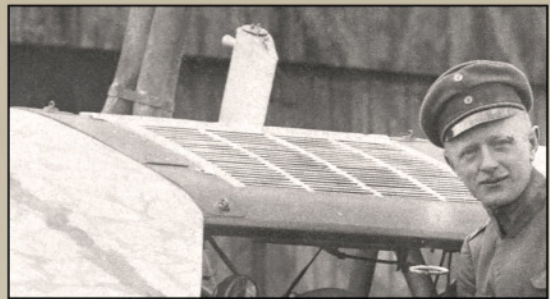
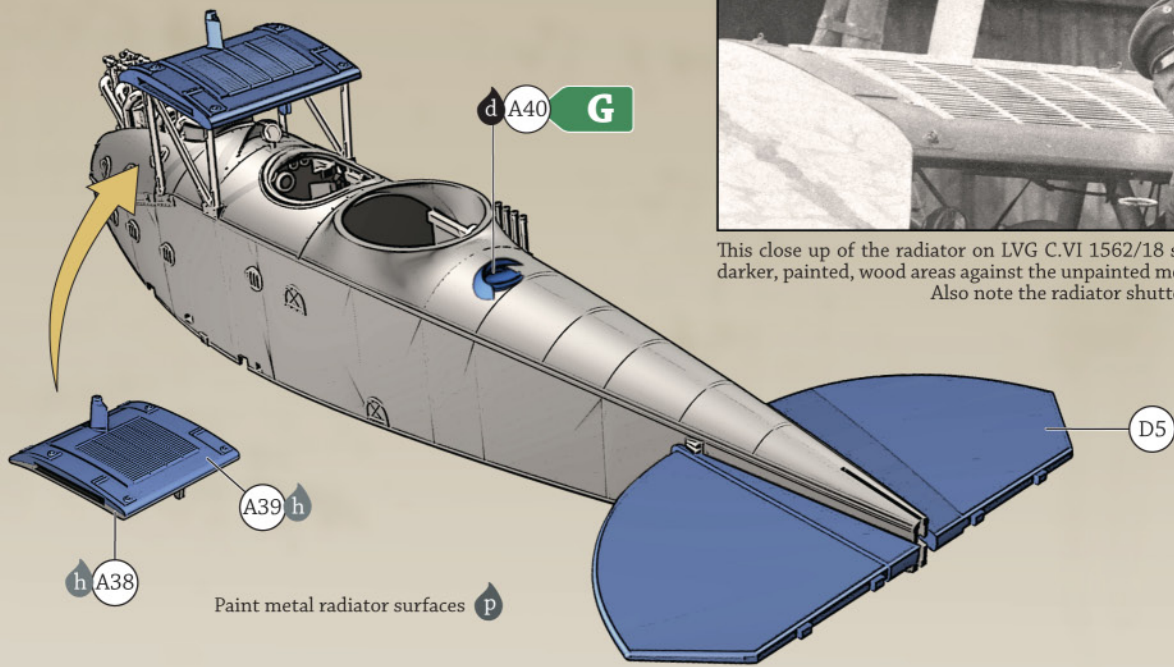
12 FUSELAGE DETAILS

The flare and grenade racks varied greatly from one aircraft to another depending on operational requirements and crew preference.

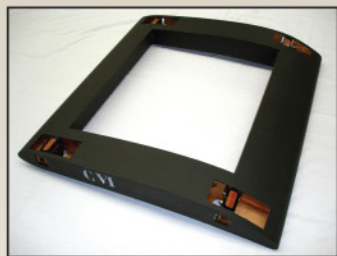


9 The crash landing of Oblt Konsek's LVG C.VI, possibly 4821/18, proves of interest to a group of onlookers. The uneven arms on the fuselage Balkenkreuz date this photo to sometime after the middle of May 1918.

13 RADIATOR & TAILPLANE ASSEMBLY



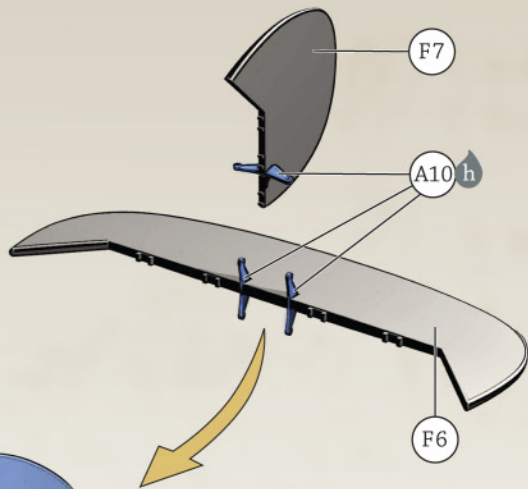
This close up of the radiator on LVG C.VI 1562/18 shows the darker, painted, wood areas against the unpainted metal areas. Also note the radiator shutter handle.



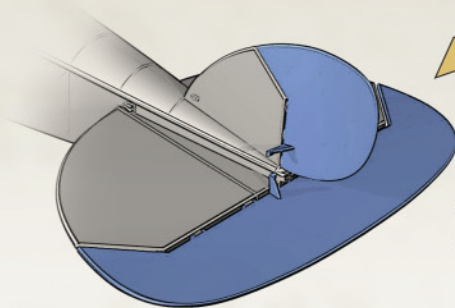
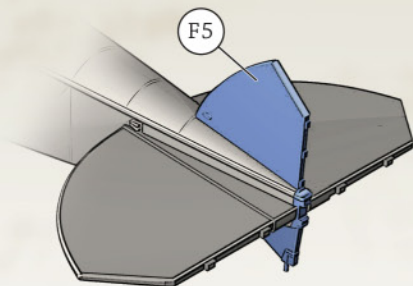
Upper wing cabane section showing the radiator cut out from 9041/18 (Memorial Flight Association).



Restored and reproduction adjustable radiator shutters. These were operated by the handle shown in the above photo of 1562/18 (Memorial Flight Association).



If using lozenge decals, apply them before gluing on **A10**



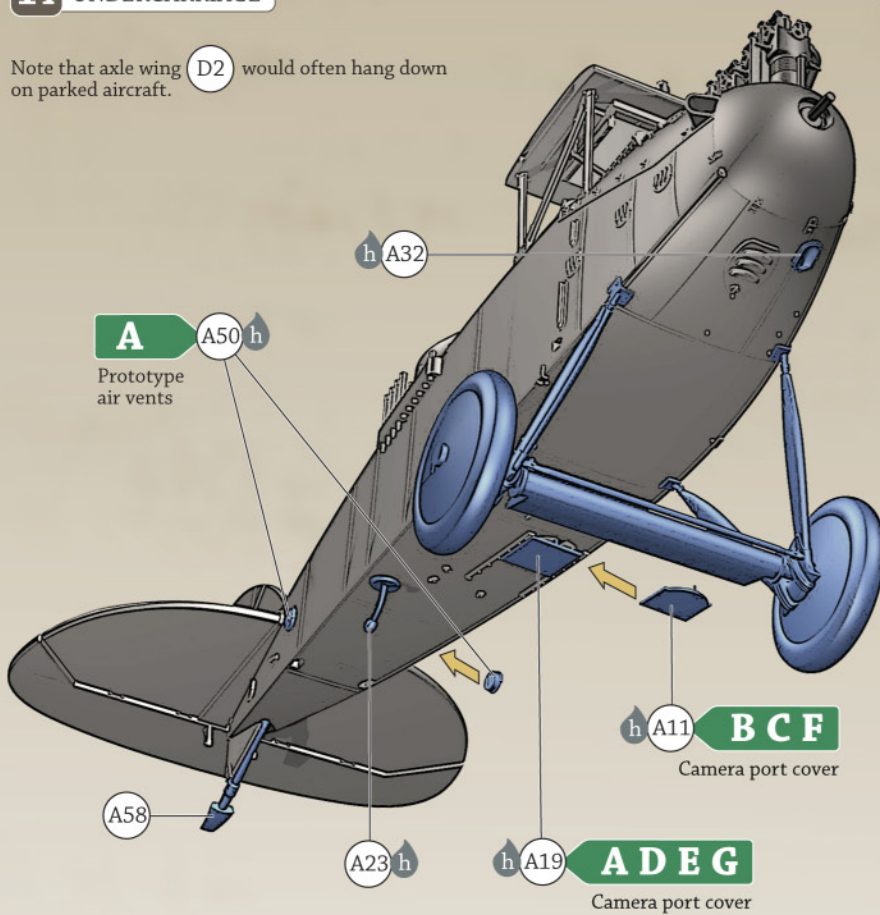
Tailplane detail from Shuttleworth's LVG C.VI 7198/18 w/n 4503. Note the unusual strips of lozenge material on the elevator (Ray Rimell).



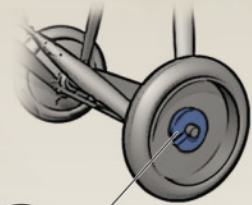
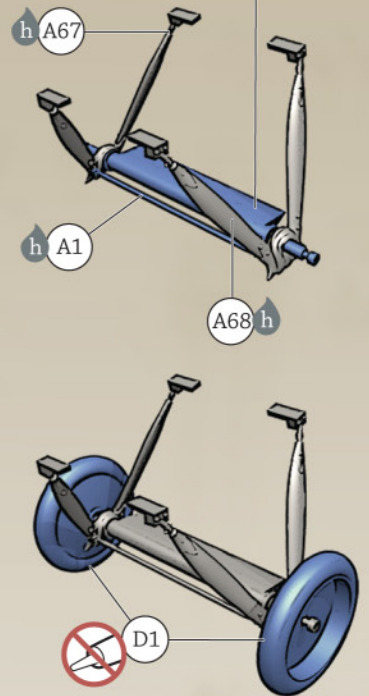
Note the control horn and cable outlet details on the tail of 1562/18 w/n (work number) 4012.

14 UNDERCARRIAGE

Note that axle wing **D2** would often hang down on parked aircraft.



Paint strut brackets **d** **h D2**



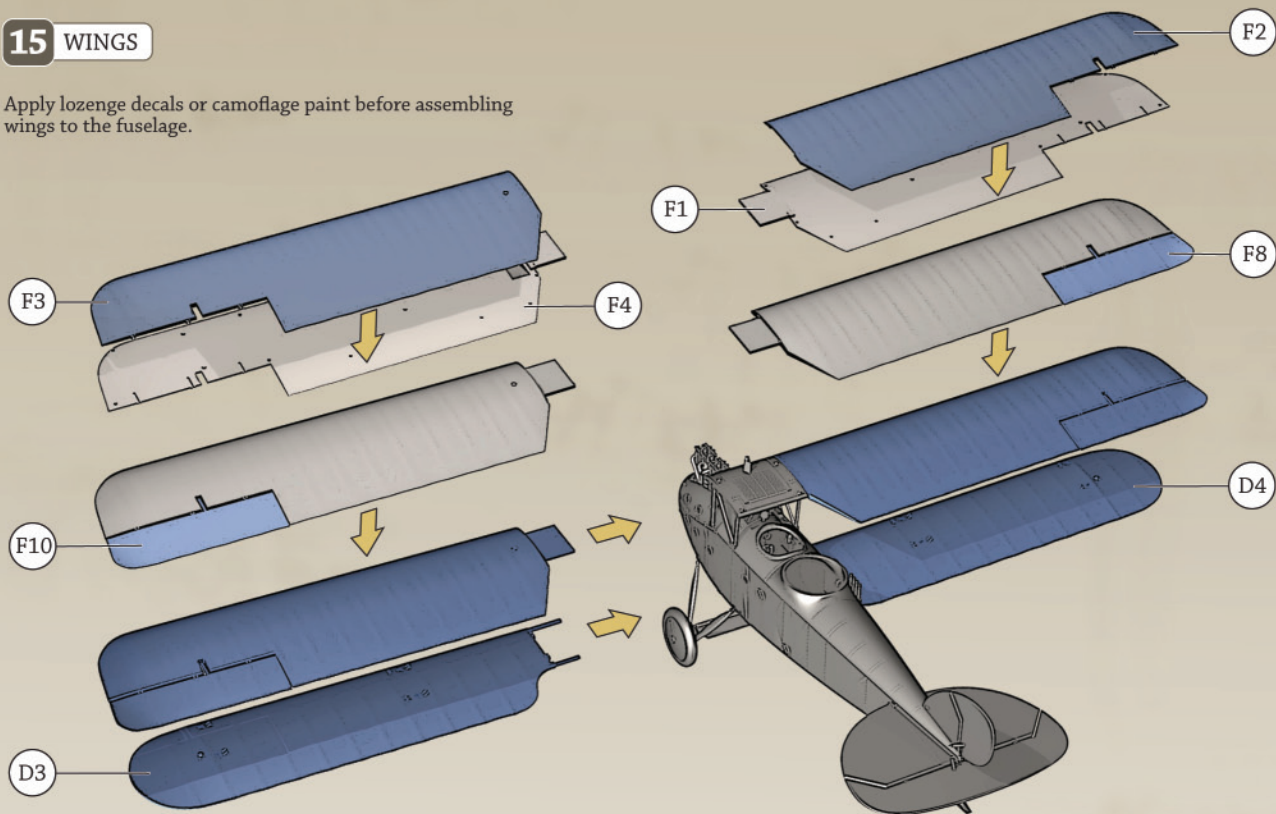
Undercarriage detail from LVG C.VI w/n 4821 (via Colin Owers).



Undercarriage detail from LVG C.VI 1562/18 w/n 4012 showing the axle wing hanging down.

15 WINGS

Apply lozenge decals or camouflage paint before assembling wings to the fuselage.



16 INTERPLANE STRUTS

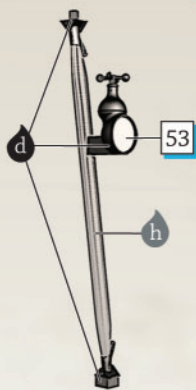
Cut off locating tab for anemometer if not required.

BCDEFG

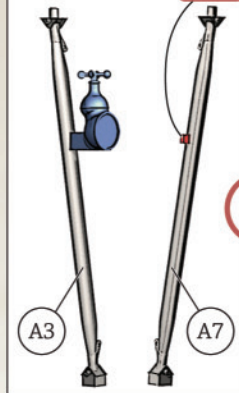
Anemometer

A76

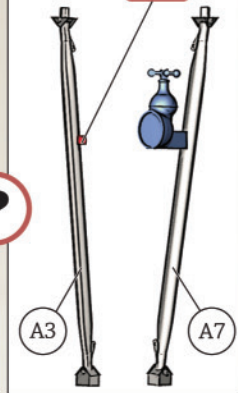
A75



ABDEF



ACG

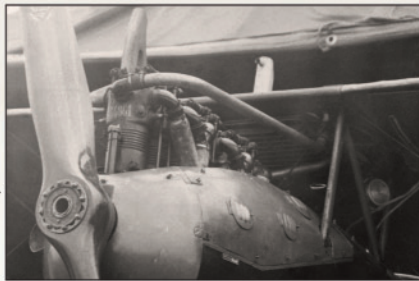
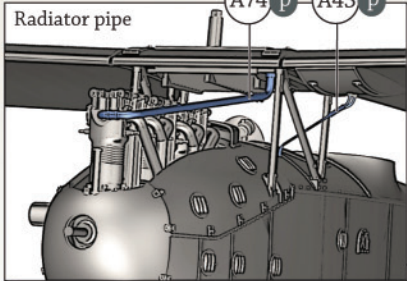


Anemometer mount detail.

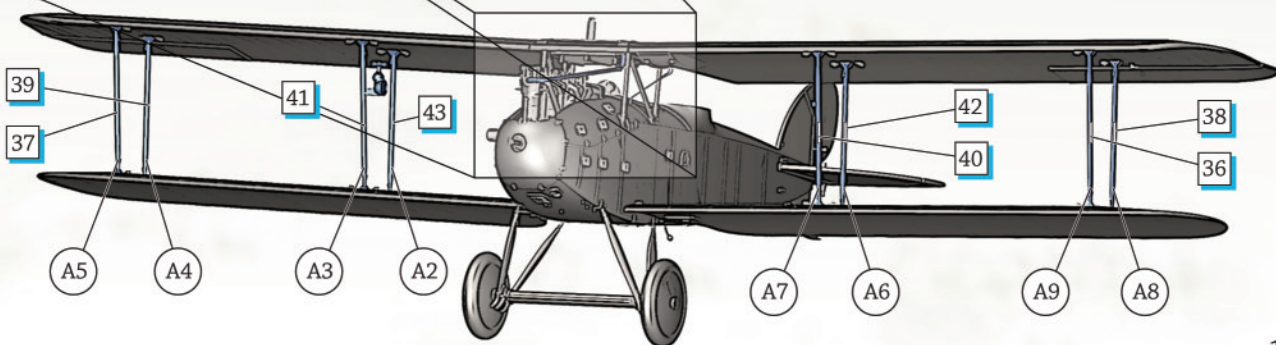
Radiator pipe

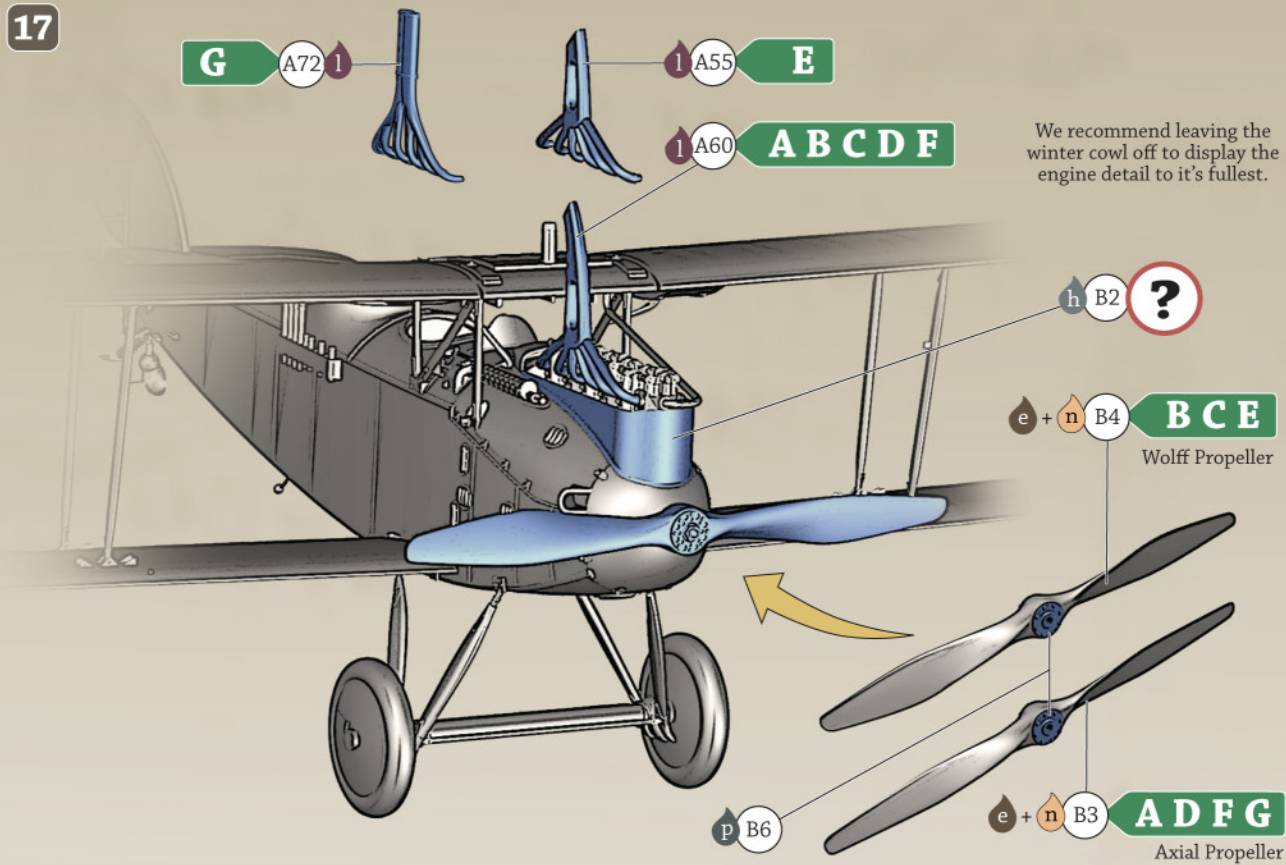
A74 p

A43 p



< Radiator pipe and cowling details.





We recommend leaving the winter cowl off to display the engine detail to it's fullest.



Close up of w/n 4821 showing exhaust details (via Colin Owers).



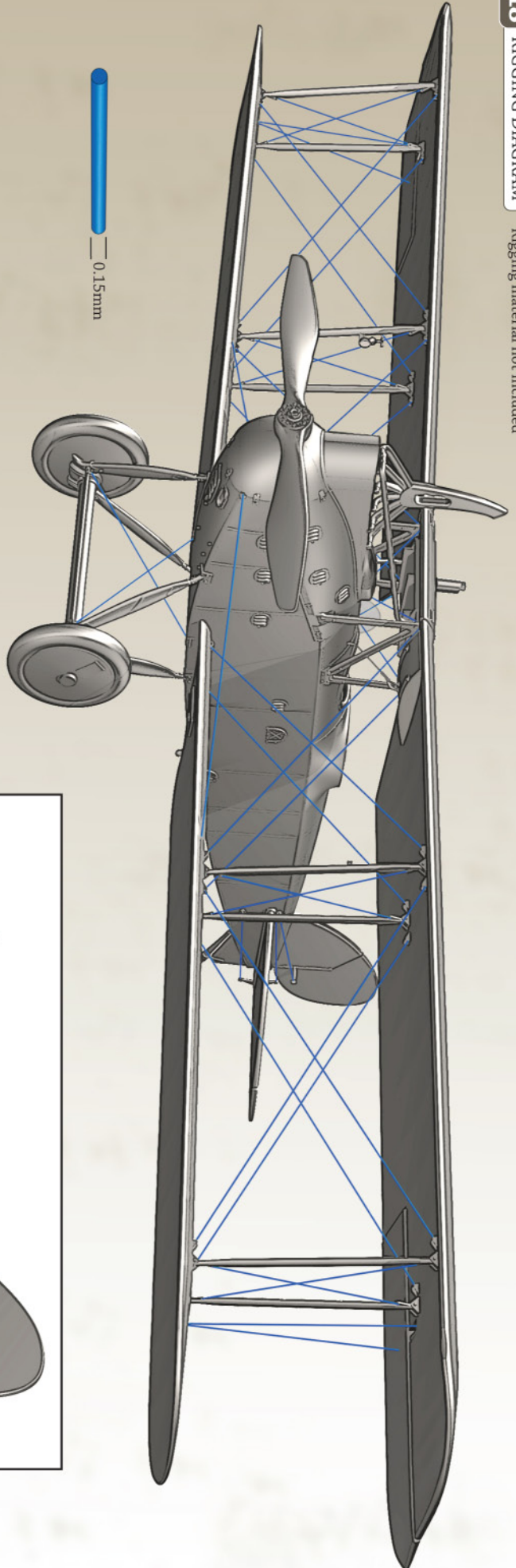
Another style of exhaust as seen on this LVG C.VI, possibly w/n 4008.



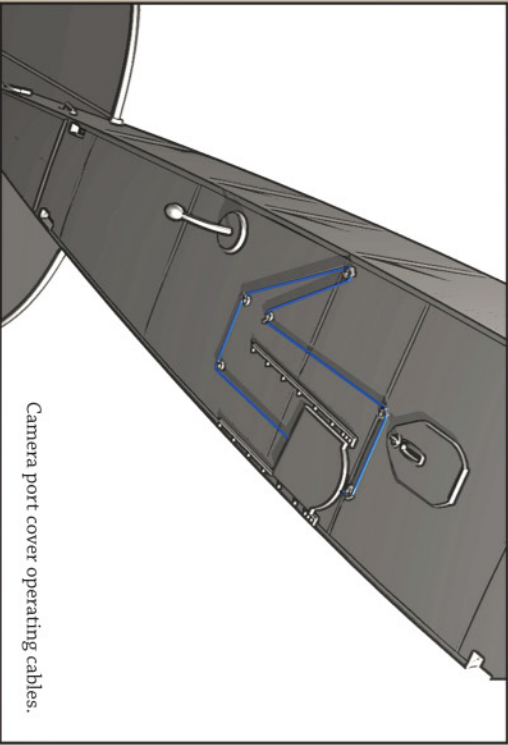
LVG C.VI w/n 4821. Note the Barograph strung between the inner starboard struts and deformed plywood fuselage (via Colin Owers).

18 RIGGING DIAGRAM

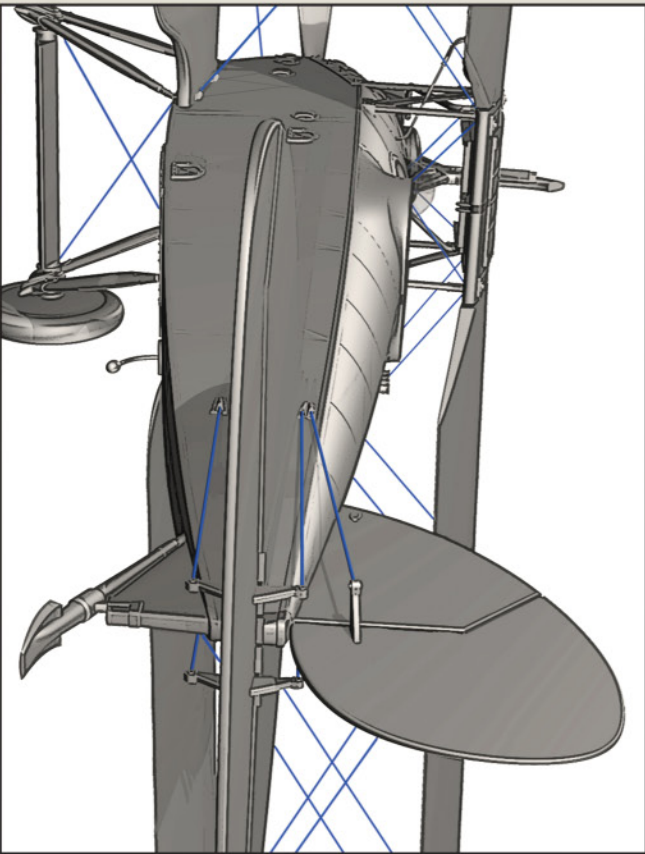
Rigging material not included



— 0.15mm



Camera port cover operating cables.

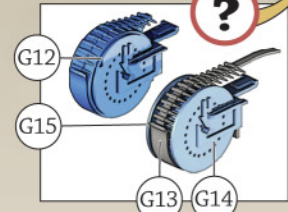


19 GUNRING AND FINAL ASSEMBLY

DE G1 Parabellum LMG14/17 **DE** G5 Oigee sight

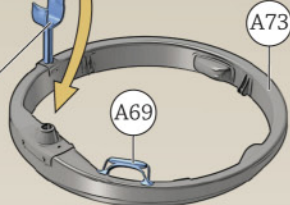
BC G2 Parabellum LMG14

Gun varies between aircraft



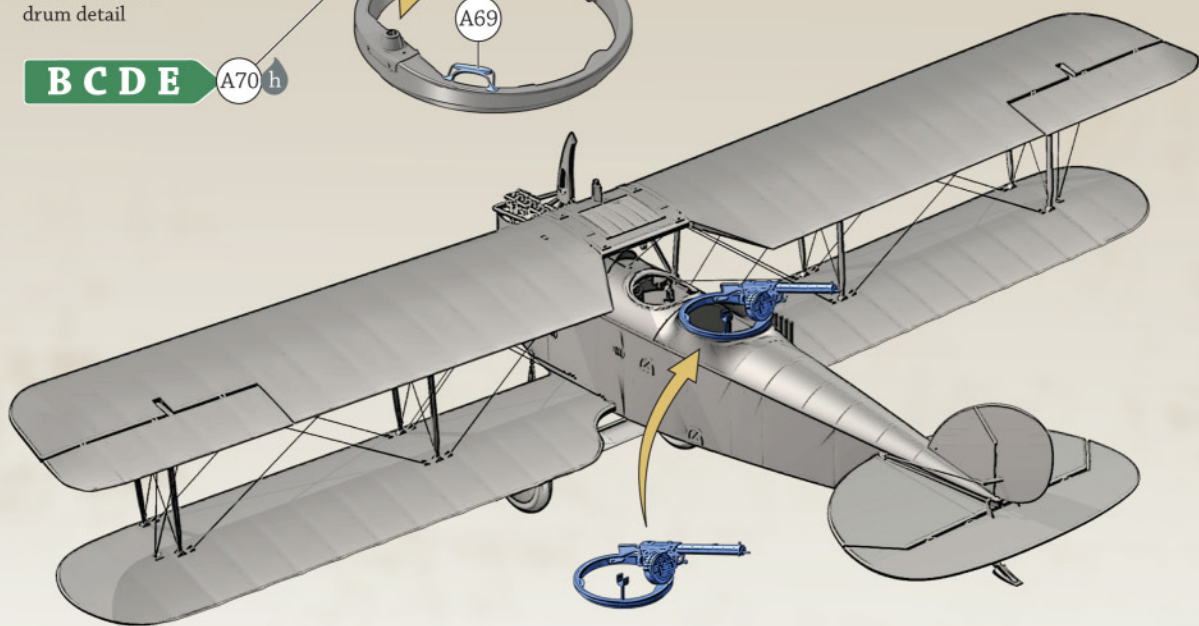
Choice of ammo drum detail

G3
G4
G9
Allow gun to elevate in mount



BCDE A70 h

Painting Guide



15 The observers main defensive weapon was the Parabellum LMG14 (shown here) or the later LMG14/17. The 200 round drum magazine has been removed for the photo.



LVG C.VI 4802/18 "Eleanor" with Lt Weymar and Lt Haselhoff getting a helping hand before their mission on 18 September 1918. Of interest is the added sliding lid over the compartment to the rear of the observer's cockpit and the 'rack' on the side of the fuselage. Also note the dark tape running along the edges of the fuselage.



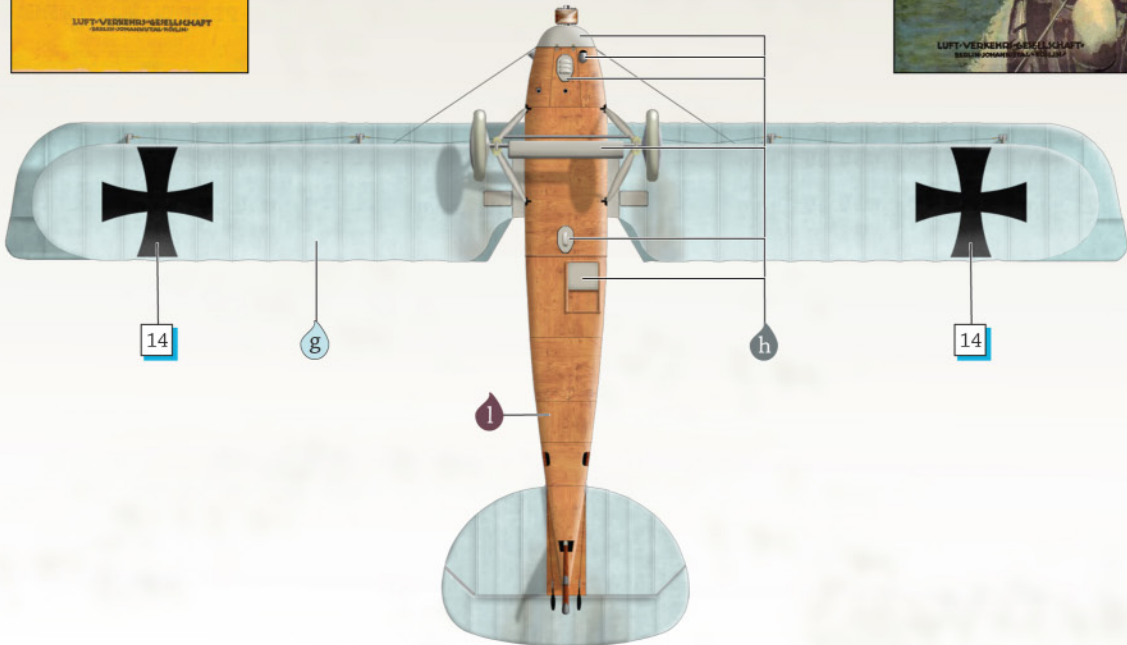
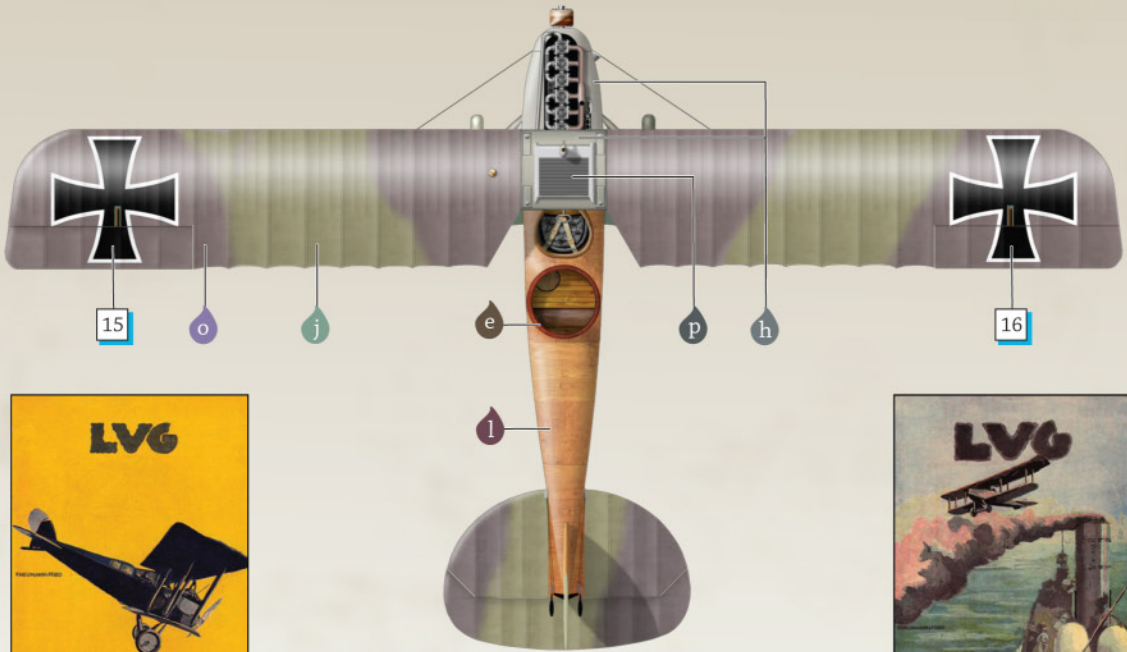
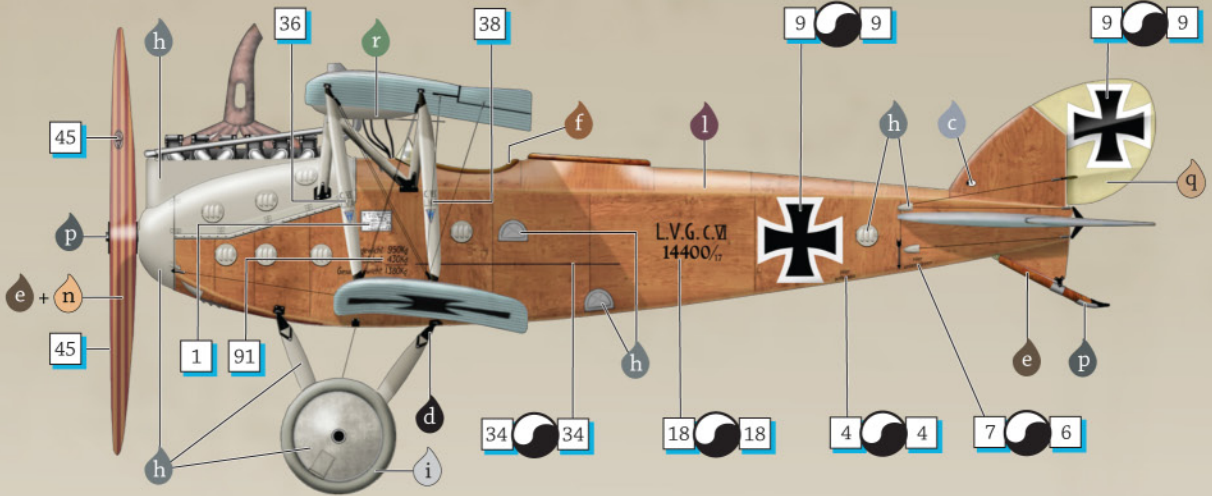
Lt Weymar striking a pose on the other side of LVG C.VI 4802/18 displaying the name 'Mia', possibly the name of a loved one. Of note here is the vast array of racks amassed below the observer's cockpit and a generator dynamo attached to the starboard undercarriage leg.



A nice post armistice view showing the light coloured clear doped linen rib tapes and engine 'winter cowl' fitted. Additionally we can see another style of flare or grenade rack and the deformed plywood fuselage sides (via Colin Owers).

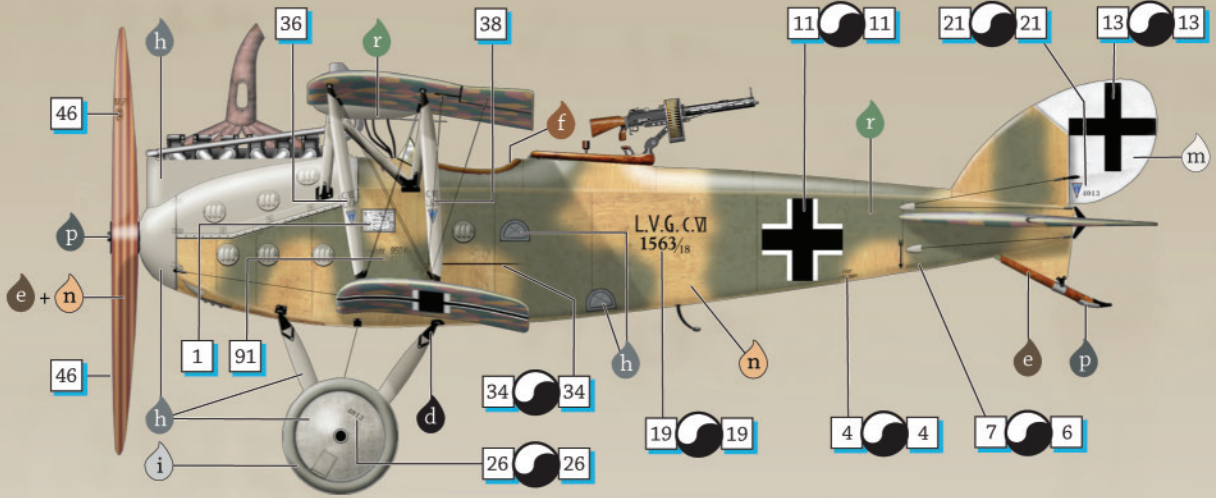
A LVG C.VI 14400/17 late prototype 1918

See step 16 for placement of decals 37 39 40 41 42 43



B LVG C.VI 1563/18 1918

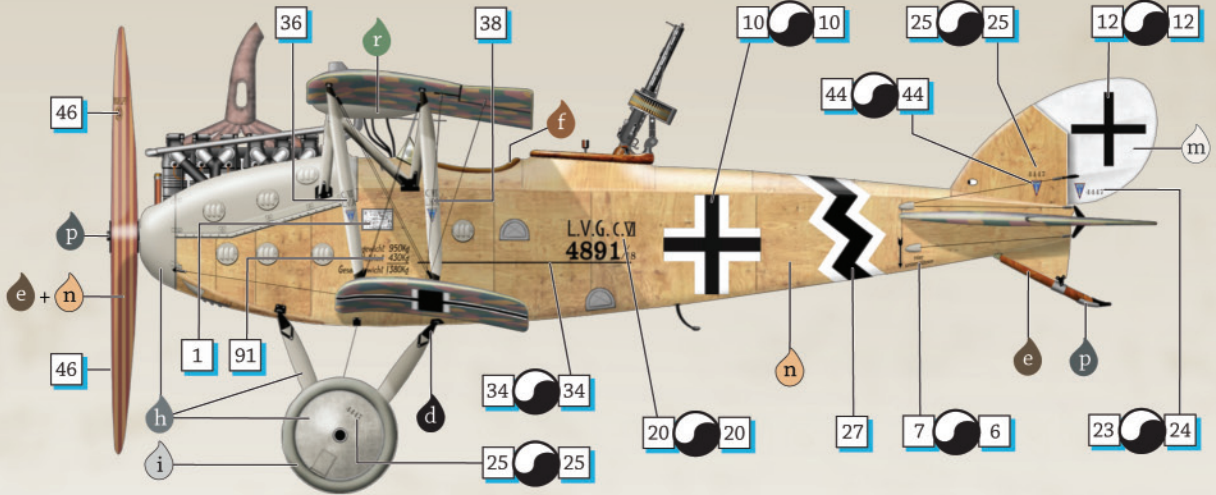
See step 16 for placement of decals 37 39 40 41 42 43



Apply decals 3 5 8 26 44 lozenge and rib tapes as shown for **D**

C LVG C.VI 4891/18 1918

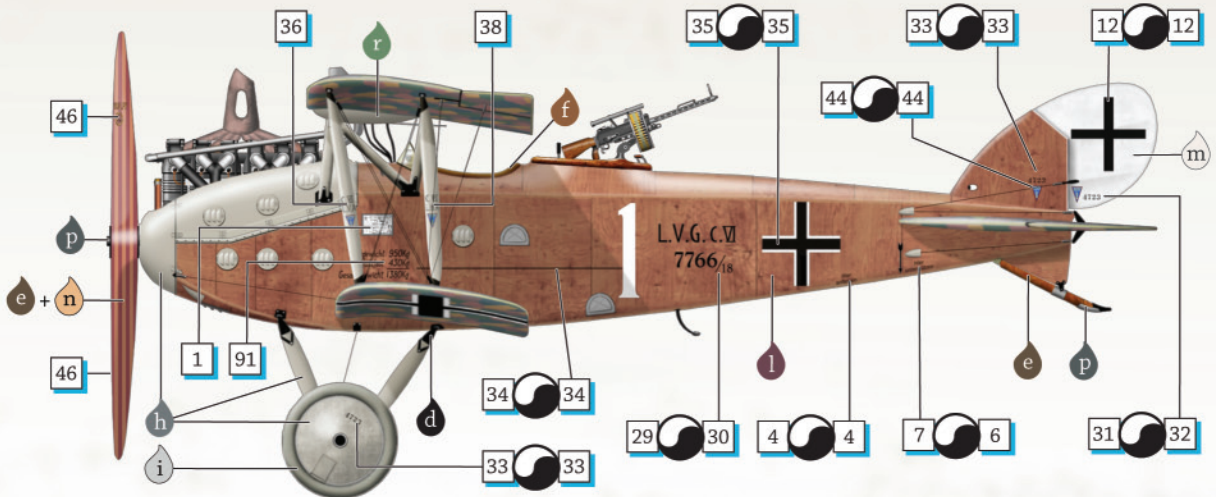
See step 16 for placement of decals 37 39 40 41 42 43



Apply decals 3 5 8 25 44 lozenge and rib tapes as shown for **D**

E LVG C.VI 7766/18 '1' 1918

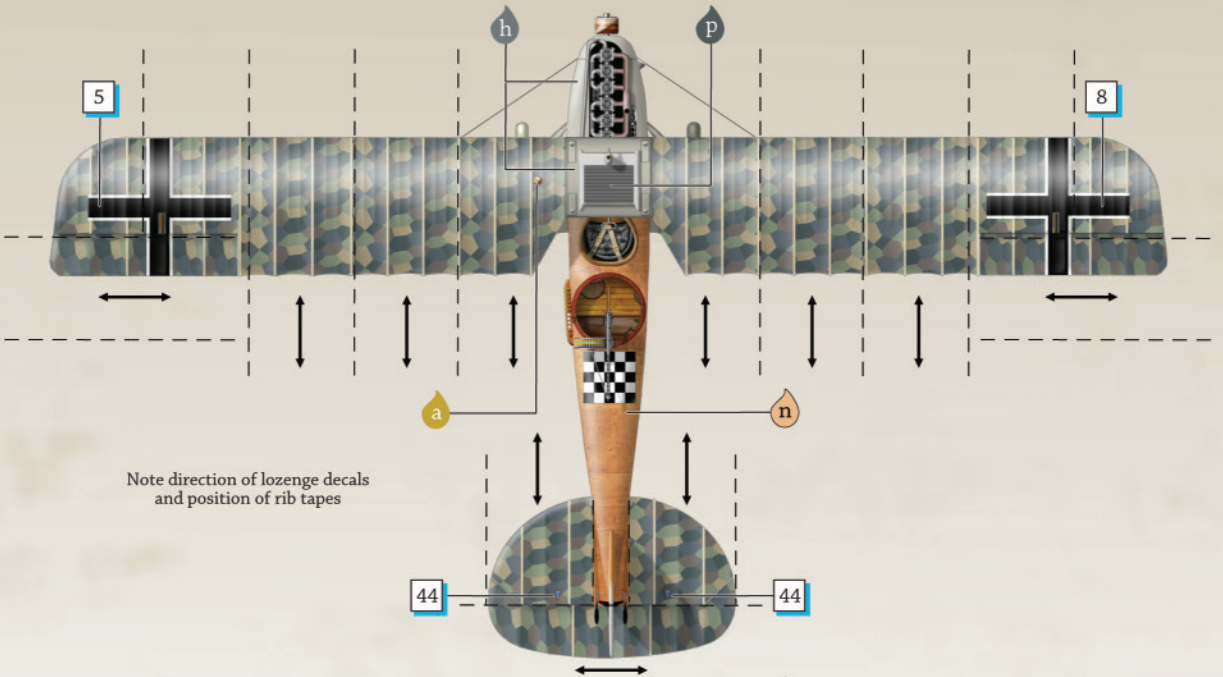
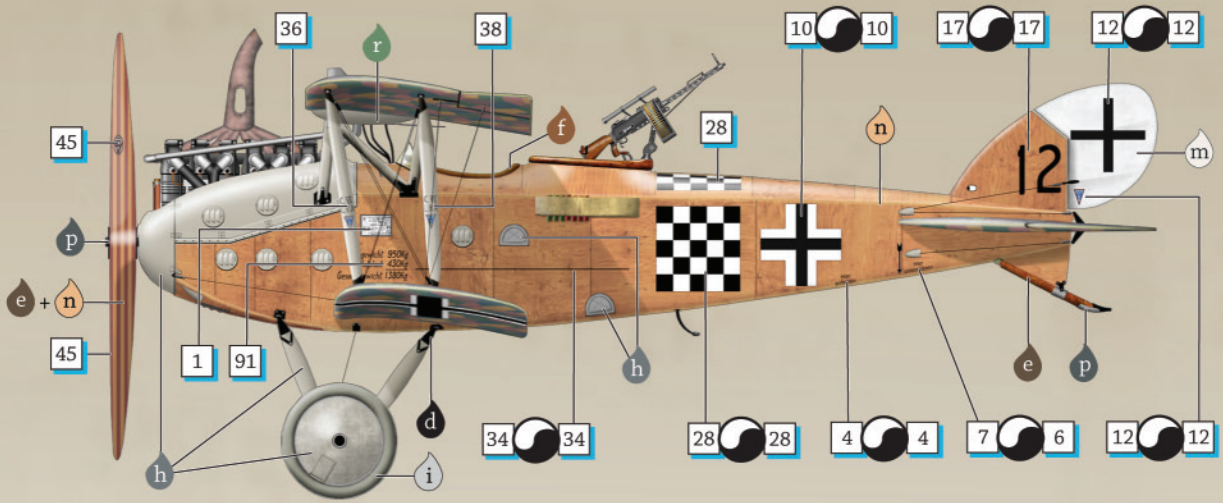
See step 16 for placement of decals 37 39 40 41 42 43



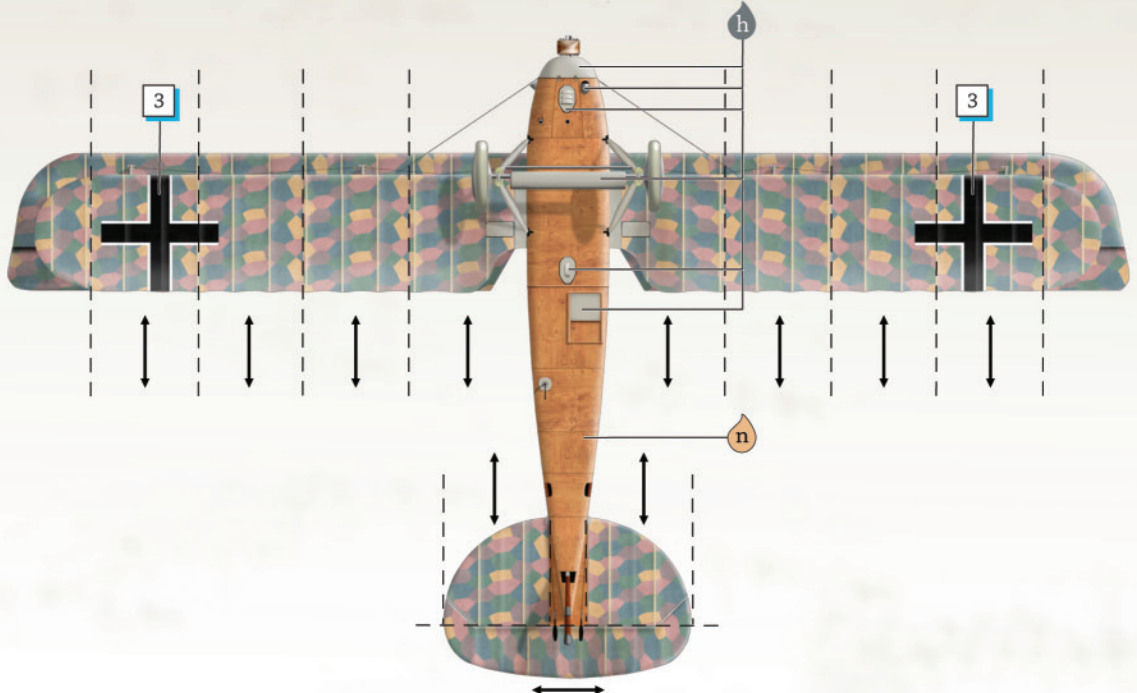
Apply decals 3 5 8 33 44 lozenge and rib tapes as shown for **D**

D LVG C.VI '12' 1918

See step 16 for placement of decals 37 39 40 41 42 43

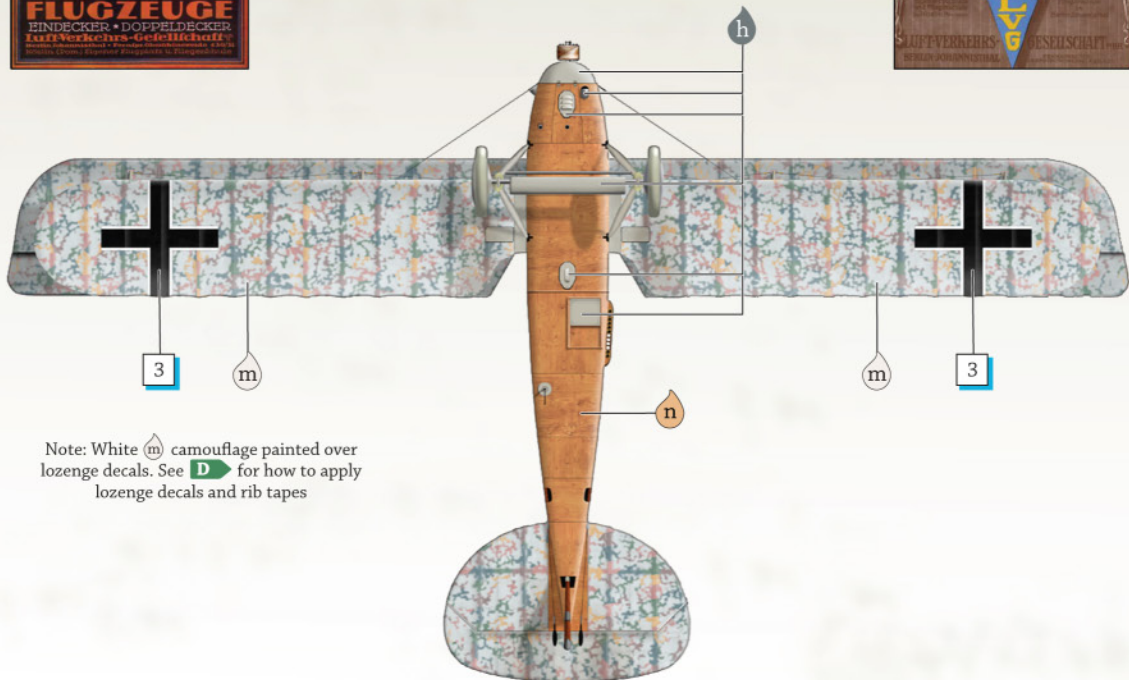
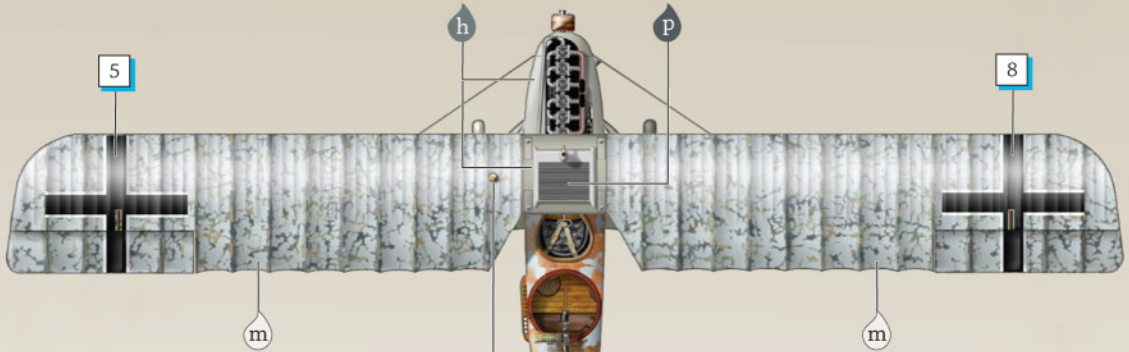
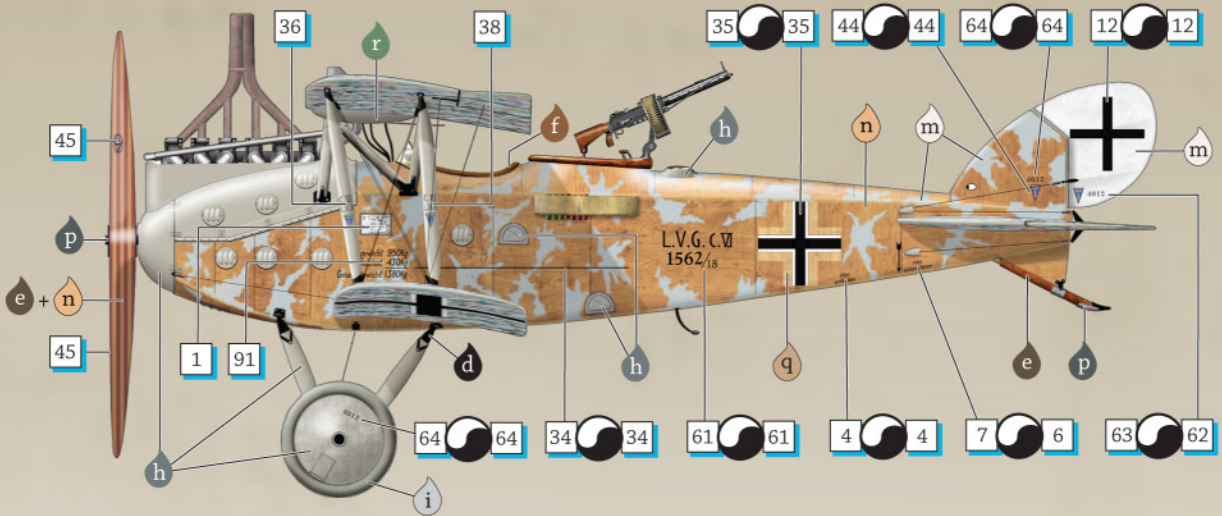


Note direction of lozenge decals and position of rib tapes



G LVG C.VI 1562/18 1918

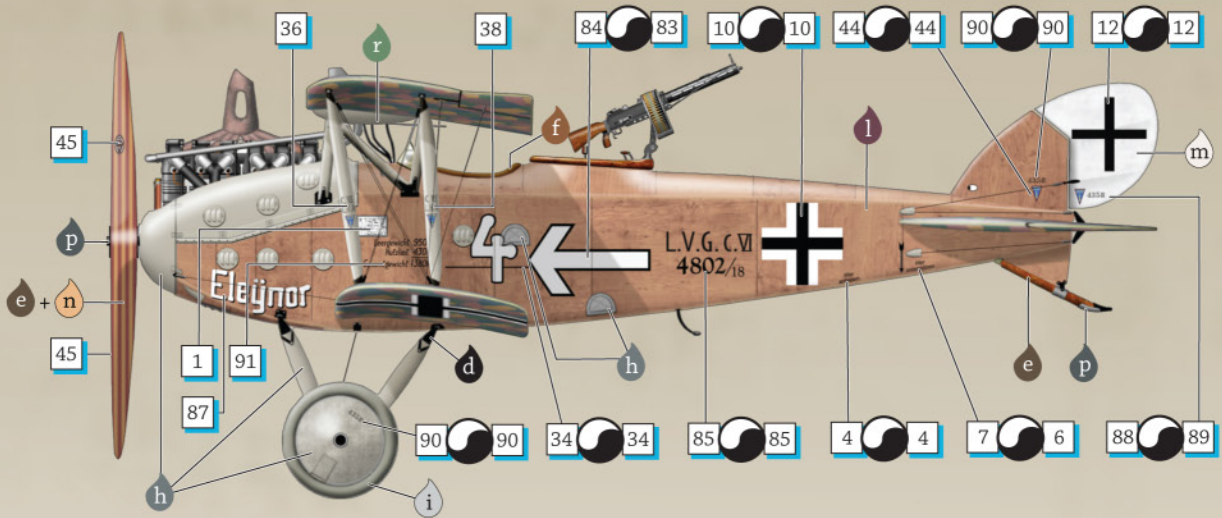
See step 16 for placement of decals 37 39 40 41 42 43



Note: White (m) camouflage painted over lozenge decals. See D for how to apply lozenge decals and rib tapes

F LVG C.VI 4802/18 'Eleanor' 1918

See step 16 for placement of decals 37 39 40 41 42 43



Right side of fuselage



86

Apply decals 3 5 8 44 90 lozenge and rib tapes as shown for **D**



A ground crewman warms up LVG C.VI 1562 w/n 4012 while Lt Kuchenthal and Uffz Friedmeyer get their last minute pre-flight briefing. Note the application of camouflage paint on the lower surface of the upper wing.

WOOD GRAIN PAINTING GUIDE

1



Equipment needed shown - Base coat area using XF59.

2



Top coat - Burnt Umber oil paint.

3



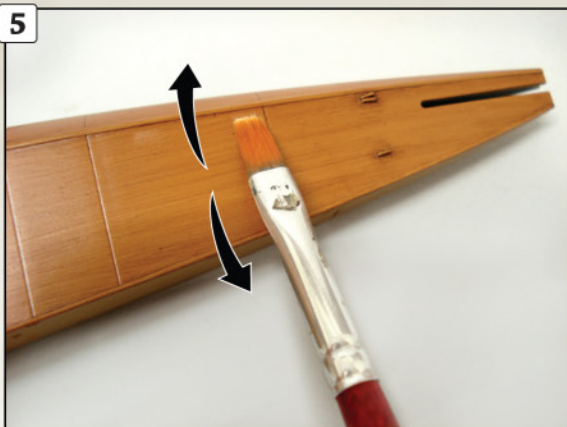
Use sponge to apply - remove excess paint onto paper. Spread oil paint on in the direction of the wood grain.

4



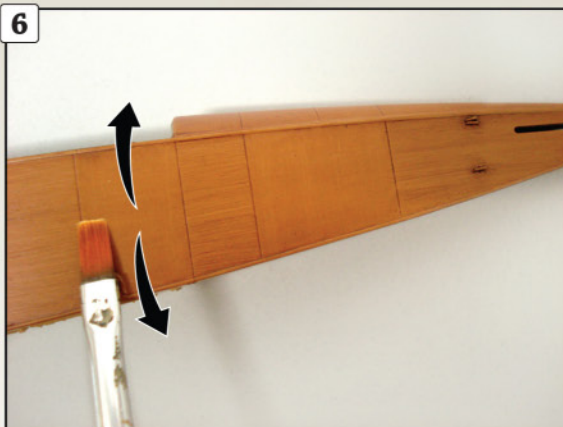
Keep spreading until the whole surface is covered evenly leaving a wood grain look.

5



Use a clean, dry brush in an up & down direction on alternative panels to break up the wood grain.

6



Doing this for every 2nd panel will provide the look we're after.

7



Allow to dry for at least 24 hours before varnishing or applying decals.

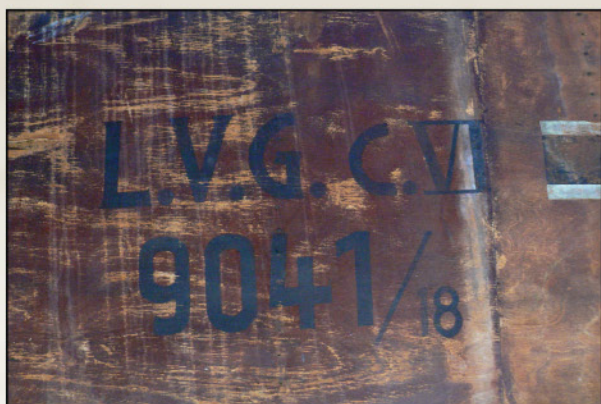
Three examples of this significant aircraft survive to this day. 7198/18 in the UK, 9041/18 in France and 4981/18 in Belgium. We include the following photos to aid you in achieving a realistic paint finish to your model.



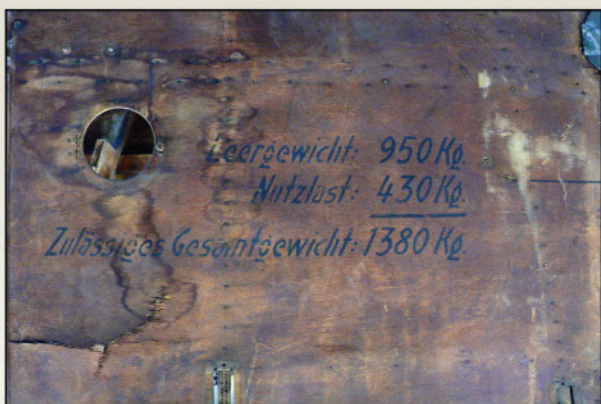
LVG C.VI 4981/18 appearing remarkably original when pictured here in the Brussels Air Museum. Of note is the lightly stained fuselage, dark engine panels, unusual exhaust and wooden wheels.



LVG C.VI 9041/18 undergoing restoration at the Memorial Flight Association. The original condition of the fuselage allows us to see the dark red brown stain applied to the exterior (Memorial Flight Association).



Close up of the Bestell (serial) number issued by Idflieg (The German Inspectorate of Aviation Troops.)



Weight table detail from port side of fuselage. Empty weight: 950kg, Payload: 430kg, Maximum allowed weight: 1380kg.



Detail of the reinforcing tape applied to the edges of the fuselage. These often appear quite dark in contemporary photos compared to the surrounding fuselage colour (Memorial Flight Association).



A remarkable sight for visitors to Shuttleworth's flying days for many years, a genuine LVG in the air over Bedfordshire (Ray Rimell).



Nose detail from the Shuttleworth Collection's LVG C.VI 7198/18 showing the strut end brackets, turnbuckles and rigging details. Also note the very dark engine cowlings and light varnished fuselage (Ray Rimell).



LVG C.VI 7198/18 preparing for takeoff. Note the non-standard radiator, cockpit padding and the observer's beard, no doubt hiding a huge grin (Ray Rimell).



The Shuttleworth Collection's beautifully restored aircraft. Note the aileron washout, non-standard blue rib tapes and the flared trousers on the aviation enthusiast inspecting the fuselage wood grain, dating this photo to sometime after 1969 (Ray Rimell).



LVG C.VI 1562 w/n 4012 with Lt Kuchenthal and Uffz Friedemeye. Note the interesting winter camouflage application, externally mounted compass, flare gun and modified, thinner, Balkenkreuz marking dating this photo to some time after the middle of May 1918.



LVG C.VI '3', possibly 7162/18 has been wheeled out from under its shelter for this pre flight photo opportunity. Note the very dark look of the fuselage, almost certainly painted dark red brown.



This brand new LVG C.VI, possibly w/n 4008, serves as a backdrop for a dramatically posed photo of Lt Lieschke and Vzfw Winzer and ground crewmen.



LVG C.VI '2' displaying yet another flare rack arrangement. Note the instrument, possibly a rate of climb indicator, suspended from the rigging in front of the cockpit.



Uffz Friedemeyer and Lt Kuchenthal pose for a photo with their ground crew in front of LVG C.VI 1562 w/n 4012.



3-D Modelling by Anto Bond

Anto is a 3D artist specializing in modelling and character animation with over 10 years experience in film and television. He grew up in a family of artists so it was a only natural for him to progress into the arts. Initially it was music, playing the guitar in local Adelaide bands and working as an audio engineer, but eventually he was drawn to the digital arts and 3D in particular.

Born in Australia of Croatian descent Anto has always had a keen interest in military history and related subject matter, in particular World War 1 and 2, so it was somewhat of a happy coincidence being able to contribute to this project while working at Weta digital. When spending time away from the computer his other passions are watching and playing football (soccer) but most of all, working on and driving his 1973 Ford Falcon GT muscle car.

Learn more about Anto Bond at www.antobond.com



Box Art by Steve Anderson

Steve Anderson is an avid historian of military aviation, with a special interest in the many beautiful biplanes and triplanes of World War I. The aircraft and battles of famous World War I aces such as Baron Manfred von Richthofen (better known as the "Red Baron"), James McCudden, Raoul Lufbery, Ernst Udet, Werner Voss, and other pioneers of dogfighting are among Steve's favorite subjects.

An Artist Fellow of the American Society of Aviation Artists, Steve creates works that reflect scrupulous attention to historically accurate detail, from the colorful markings on the fuselages to the time of day of an actual battle.

Visit Steve's website at: www.anderson-art.com.



Profile Art by Ronny Bar

Ronny Bar developed a keen interest in airplanes from an early age, living close at the El Palomar Air Force Base in Buenos Aires. He first flew in the back seat of a T-34 Mentor trainer at the age of ten, and was soon drawing airplanes and building models: Spitfires and Messerschmitt first... Camels and Fokkers later.

He became a successful bass player with a career lasting over 35 years in several Rock bands, recording ten albums (one of them being a National hit selling more than 100,000 copies) and performing countless concerts, TV shows and tours all over Argentina.

Now retired from the R'n'R scene, his interest returned to his early passion: Aviation Artwork. Visiting the WW1 aircraft collection at Hendon focused his already growing interest for that historic period. His artwork is regularly appearing in journals and publications like Windsock Worldwide, Windsock Datafiles, Cross & Cockade and Over the Front.

You can contact Ronny at: ronibares@yahoo.com.ar
See artwork at: www.wwi-models.org/Images/Bar/Art/index.html



Project Co-ordinator, Richard Alexander

A native of Wellington New Zealand, Richard Alexander has a long term interest in military history, race cars & local drivers from motor sports golden era of the '60's. Other interests include mountain biking, scotch and cigars.

An accomplished modeller Richard's models have twice been awarded Best Overall in Show at IPMS(NZ) National Conventions and earned him the inaugural TamiyaCon(NZ) Master Modeller award (along with the associated trip to Japan) in 2001. Many of his works are in private collections around the world, though he no longer accepts commissions.

Richard has been in the model and hobby industry since 1991 and brings with him a keen eye for detail and a passion for ensuring our models are enjoyable to build. So if there is anything you don't like about this model, you can blame him.

If you do have comments, requests or suggestions, Richard is contactable at richard@wingnutwings.com



32002	1/32 LVG C.VI	Qty
0132002A	A parts	1
0132002B	B parts	1
0132002C	C parts	1
0132002D	D parts	1
0132002F	F parts	1
0132002P	Photo-etched metal parts	1
0132E0001	E parts Benz Bz.IV Engine	1
0132G0001	G parts Parabellum LMG 14 and LMG 14/17	1
7132002	Instructions	1
9132002	Decals LVG C.VI	1
30001	5 colour upper lozenge decals	1
30002	5 colour lower lozenge decals	1
30005	Ribtape decals	1



32001 - 1/32 Junkers J.1



32003 - 1/32 SE.5a 'Hisso'



32004 - 1/32 Bristol F.2b Fighter

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