



Pfalz D.IIIa

1/32 Scale

Often overshadowed by its more famous contemporaries Fokker and Albatros, Pfalz Flugzeugwerke GmbH was nevertheless responsible for manufacturing what was possibly the most elegant of all Great War aircraft, the Pfalz D.III and D.IIIa fighters. After spending the first few years of the war essentially building aircraft designed by other manufacturers, in 1917 Pfalz became serious about entering the competitive German fighter market with one of their own designs.

The Pfalz D.III incorporated many design features and construction techniques learned while manufacturing Roland aircraft, the most obvious of which was the extremely streamlined fuselage and their innovative construction method. Each fuselage half was created from 2 layers of long plywood strips of between 70mm to 100mm wide, each layer applied at an opposing angle and formed over a buck. Once completed each half of the fuselage was glued and tacked onto the internal framework, the centerline seams were taped and then the whole fuselage was finally covered with doped on fabric. This technique allowed the lightweight construction of a sleek fuselage featuring many compound curves without resorting to the many small panels of the Albatros D.V. The 2 LMG 08/15 'Spandau' machine guns were positioned inside the fuselage contributing to the very sleek lines of the aircraft.

Despite all this the Pfalz D.III was received with mixed reactions from the Jasta pilots when it entered front line service in August-September 1917. The maneuverability was excellent but performance in other areas was lacking when compared to its contemporary the Albatros D.V. One area which raised much concern was the internal gun arrangement which made clearing a jam particularly inconvenient during combat. Part way through the initial production run of the D.III the specifications were altered to include raising the guns so they were mounted externally and lengthening the chord of the horizontal tailplane to reset the centre of gravity, thereby creating the improved D.IIIa. Future updates included additional fuselage strengthening, rounded bottom wing tips and pointed strut end brackets. Unfortunately not a single Pfalz D.III or D.IIIa survives to this day. Any history of this important aircraft here is of necessity very brief, therefore we encourage you to seek out the references mentioned below for a more thorough understanding.

WW1 colour schemes 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. The colourful unit and personal markings applied to the various German fighters of the Great War have attracted more than their fair share of debate over the years and, while we have been as meticulous as we could be, I'm sure some will not find our choices to their liking. Pfalz D.IIIa fuselages left the factory painted with silver exteriors while the interior walls and framework of the fuselage were painted in medium blue-grey, similar to that found on surviving Pfalz D.XII 2600/18, or possibly light grey-green. The fabric covered wings and tailplane on early D.IIIa were doped in a similar silver colour which could appear slightly darker than the silver paint used on the fuselage due to the different reflective qualities between the dope and paint. Later production D.IIIa had their wings and tailplane covered in 5 colour pre-printed 'lozenge' camouflage material. The spinner and larger exterior metal panels were usually left in their unpainted aluminium finish. Metal strut fittings were usually painted in a colour closely matching the interior, as were the undercarriage struts and other metal parts. Additionally, many colourful unit and personal markings were applied in Jasta service, as well as in the field repairs, all of which remain amongst the liveliest of topics for modellers to debate.

Richard Alexander 2019

Wingspan:	Length:	Max Weight:	Max Speed:
9.4m (30.84ft)	6.95m (22.8ft)	Early 915kg (2017lb) - Late 905kg (1995lb)	164kph (102mph)
No. Manufactured:	Production:	Armament:	
D.IIIa 750 (D.III 260)	June 1917 - May 1918	2x 7.92mm LMG 08/15 'Spandau' machine guns	
Ceiling:	Engine:		
6000m (19685ft)	180-200hp Daimler-Mercedes D.IIIa/D.IIIau		

References:

Pfalz D.IIIa Windsock Datafile 21, PM Grosz 1990 - Pfalz D.III Windsock Datafile 107, PM Grosz 2004
 Flight Global Archives (www.flightglobal.com), April 1918 to August 1918 - Osprey Pfalz Scout Aces of WW1, Greg VanWyngarden, 2006
 Colin Owers - 1914-18 Aviation Heritage Trust - The Vintage Aviator LTD - Private Collections

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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.

Rigging: If installing rigging please drill out all location holes with a 0.5mm drill bit to a depth of at least 1mm. To make rigging as simple as possible we recommend using stretchy elastic type material like 'EZ Line' etc and not trying to replicate any turnbuckles.

Painting: Only use paints **designed and 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 (not just clear coated plastic)**. 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.

Hints & Tips: Please visit our website for additional photos, hints and tips to assist you in getting the best result from your Wingnut Wings model.

1 Construction Step



Choose



Attention



Remove

A1 Part Number



Do Not Cement



Option



Drill

5 Decal



Cement For Metal



Other Side

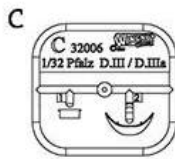
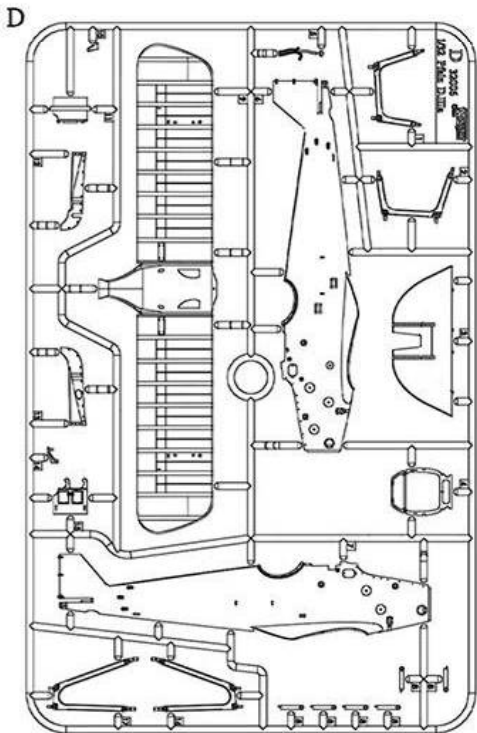
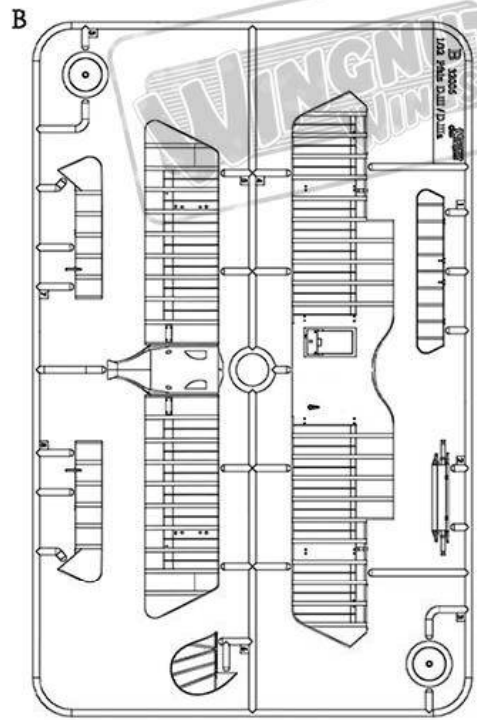
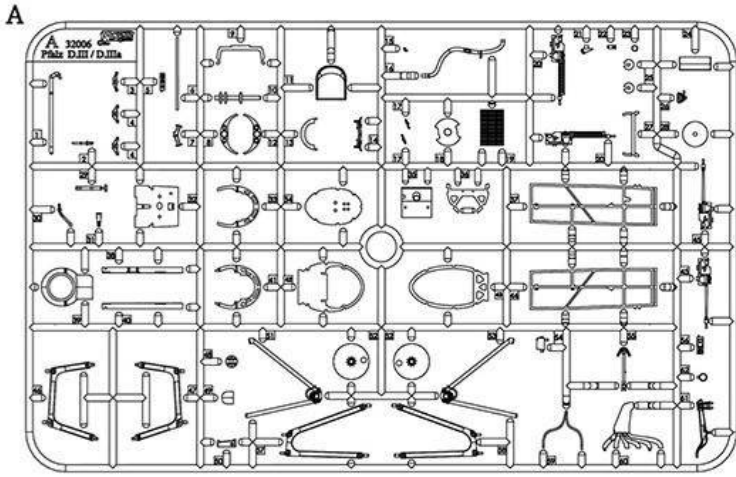


Paint Colour

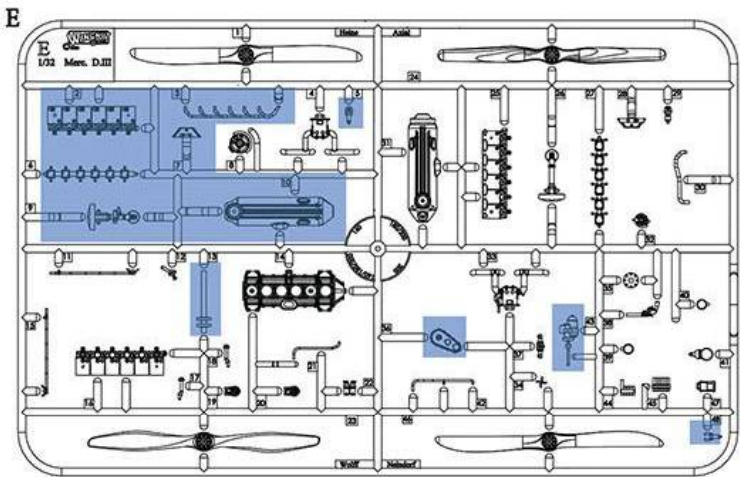
P1 Photo Etch Part

	All colours	Tamiya	Humbrol	Federal Standard
a	Brass	X31	54	
b	Gun Metal	X10	27004	
c	Aluminium	XF16	27001	
d	Black - semi gloss	X18	85	
e	Dark Wood* - gloss	XF68	98	30340
f	Leather - semi gloss	XF52	62	30219
g	Blue - semi gloss	XF8	25	
h	Interior Grey Green - matt	XF76	240	24424
i	Red - semi gloss	X7	19	31350
j	Rust - matt	XF9	113	20045
k	White - semi gloss	XF2	130	
l	Light Wood* - gloss	XF59	93	30475
m	Steel	XF56	27003	
n	Clear Doped Linen - matt	XF55	148	26360
o	Copper	XF6	12	
p	Silver - semi gloss & gloss	XF16(x2) + XF19(x1)	11(x1) + 34(x1)	
q	Rubber - matt	XF69	66	35042
r	Medium Grey Green - gloss	XF71	78	34227
s	Matt Varnish	X21(x1) + X22(x4)	49	
t	Light Grey - matt	XF19	66	
u	Jasta 29 Green - semi gloss	X28(x1) + XF8(x1)		
v	Chrome Yellow	XF3(x10) + X6(x1)	24	33637
w	Lilac			17155
x	Brown Glaze - semi gloss	X22(x5) + XF52 (x1)	135(x5) + 29(x1)	
y	Bluish Grey - matt	XF66	87	35237

Note: Apply clear varnish to achieve the desired gloss or semi-gloss finish. *See our website hints and tips for painting wood.



■ = Not Used



Lozenge Decals x2 (if applicable)

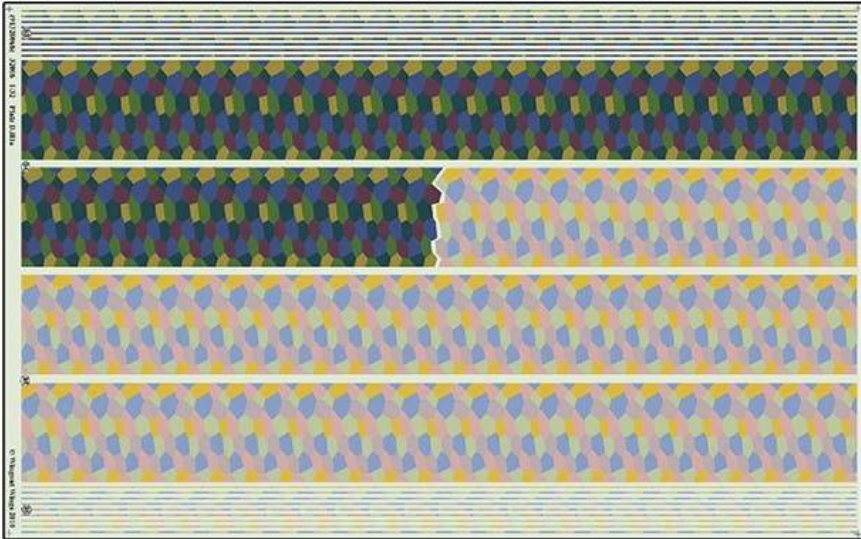
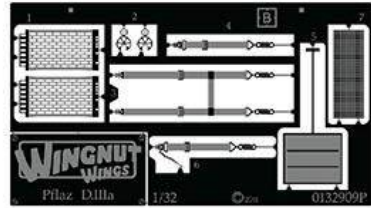


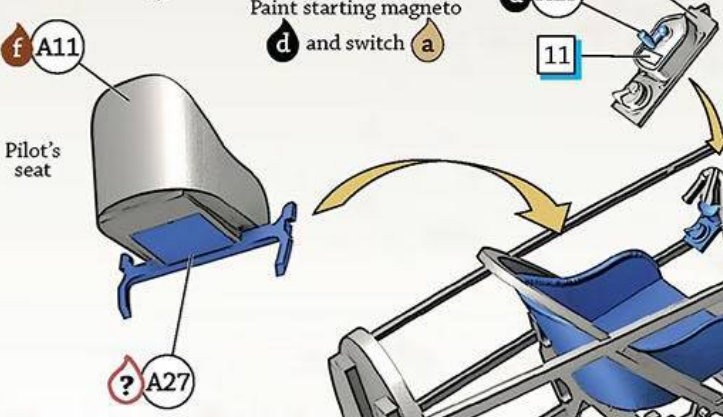
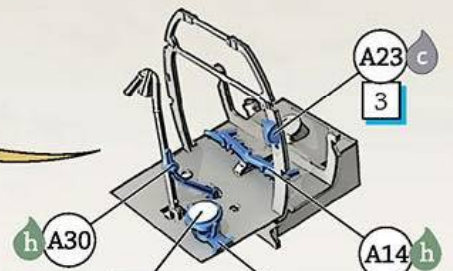
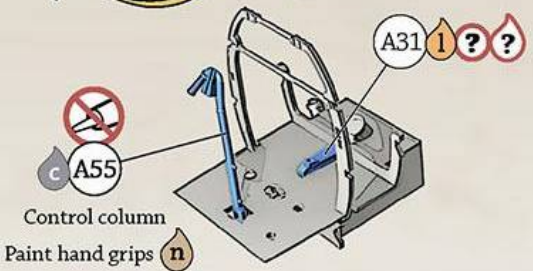
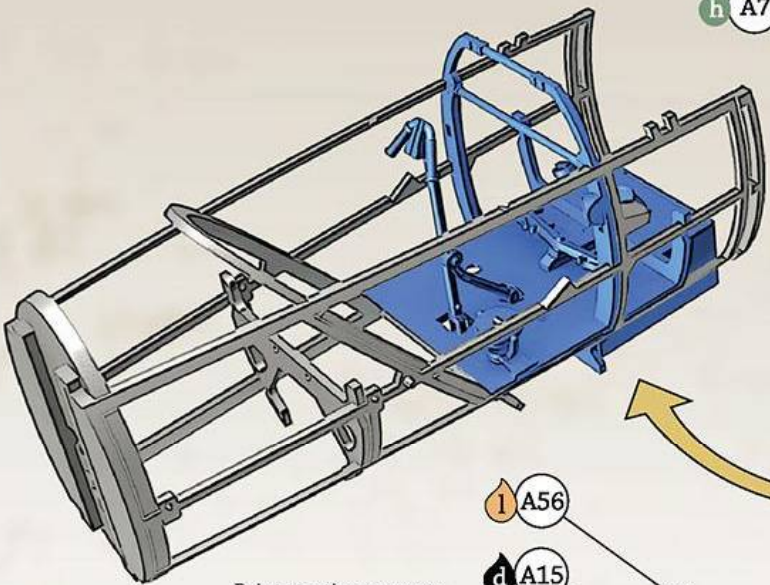
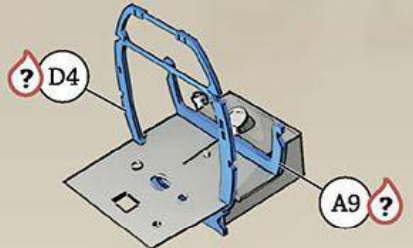
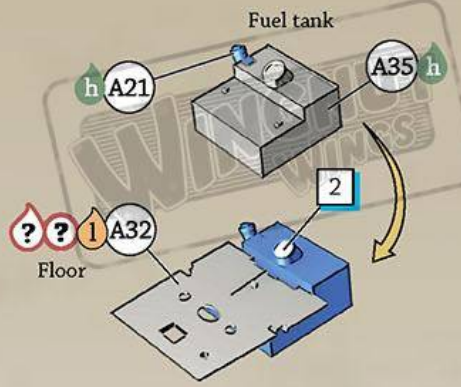
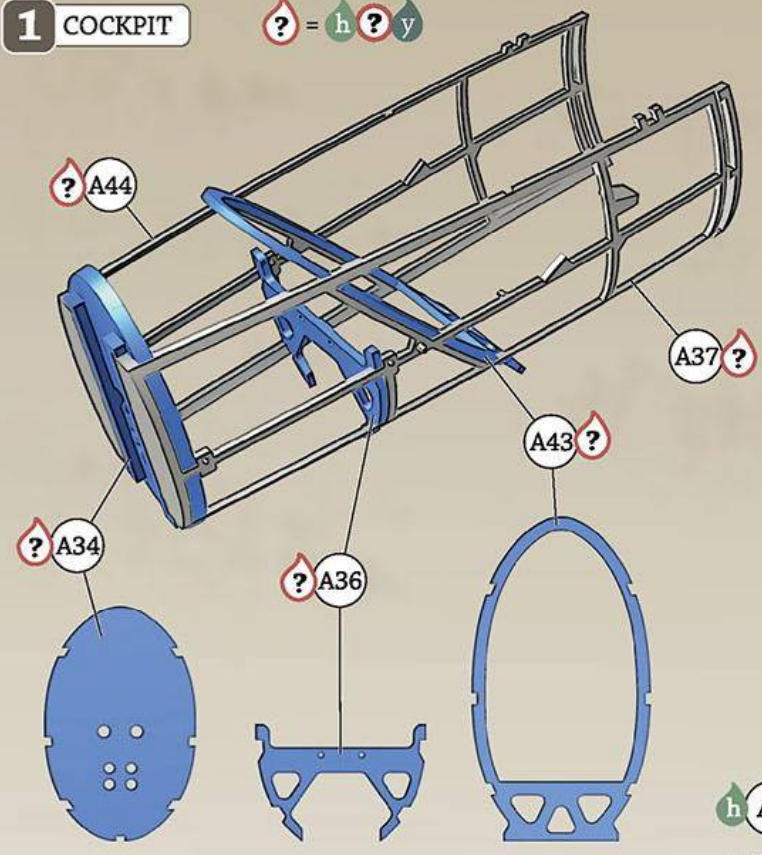
Photo Etch



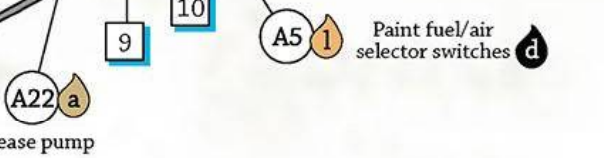
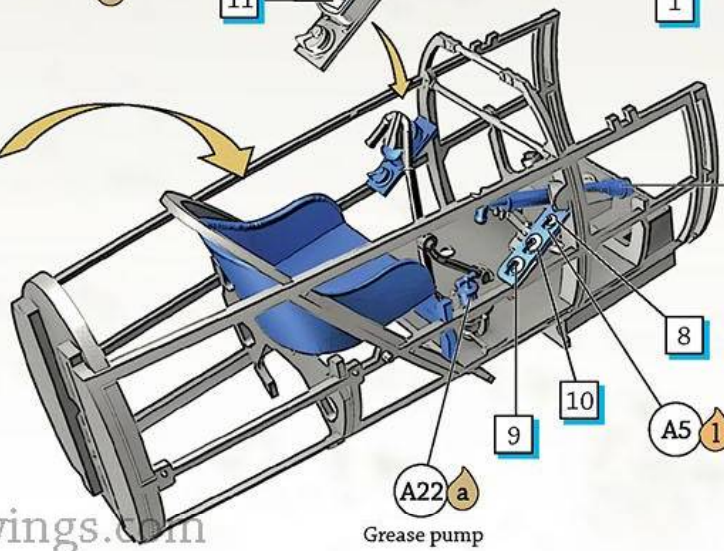
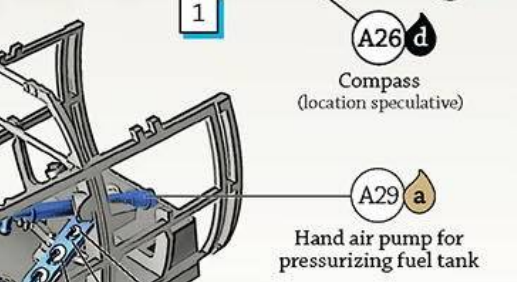
+ version specific decals

1 COCKPIT

? = h ? y

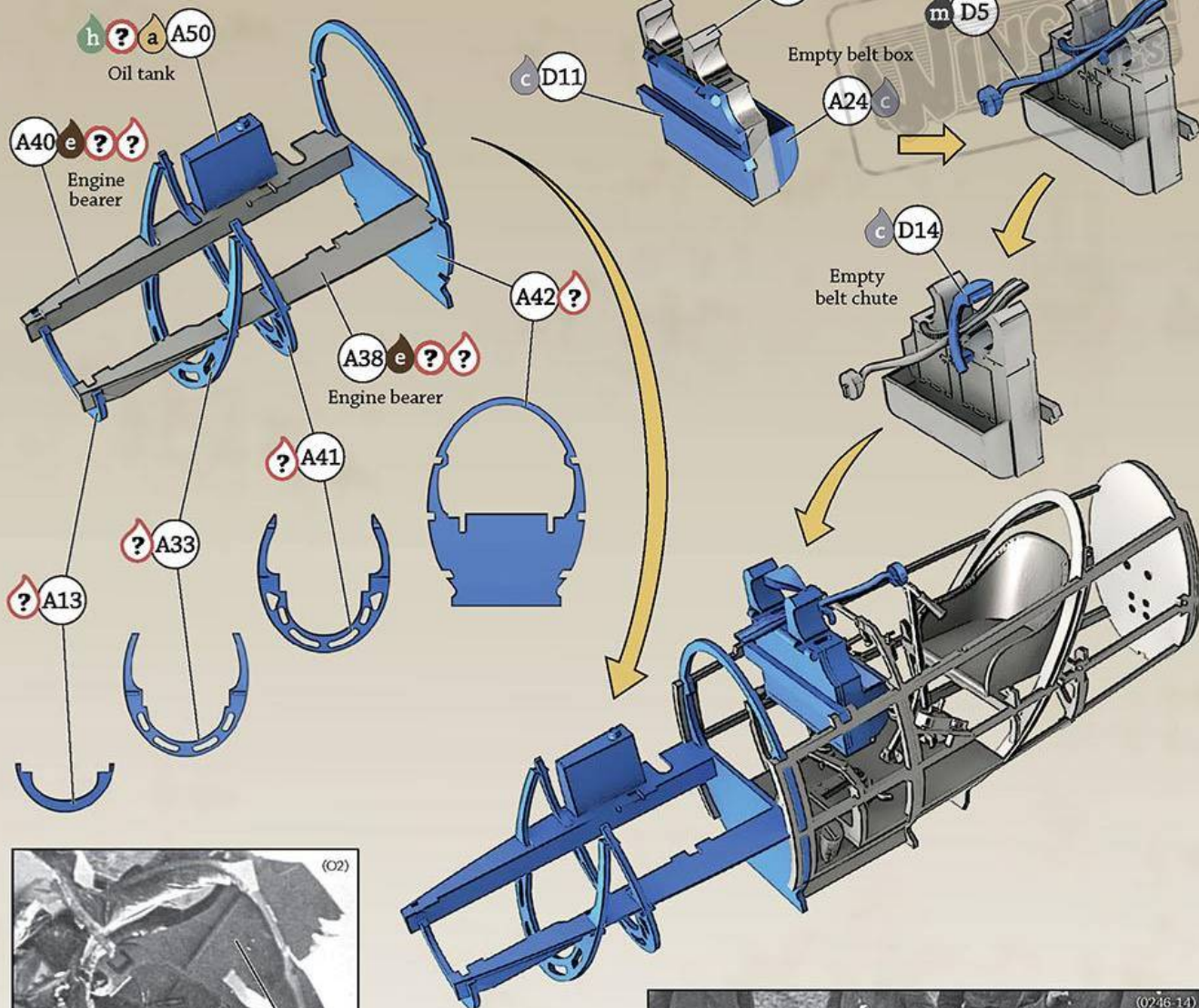


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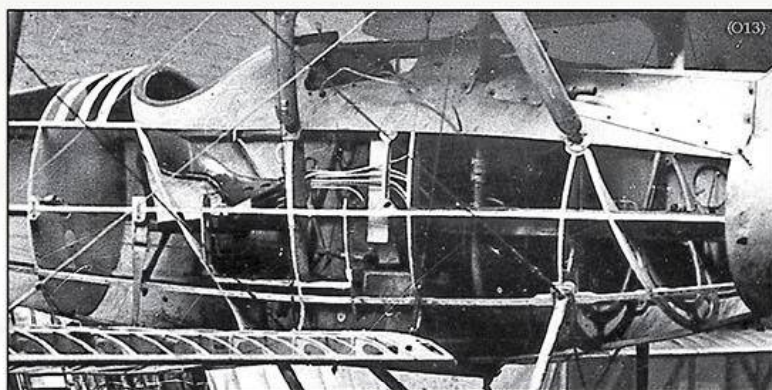
2 ENGINE BAY

? = h ? y



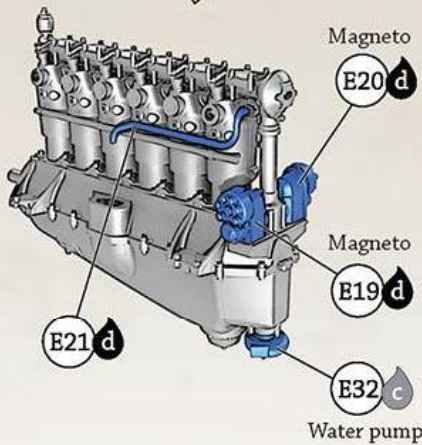
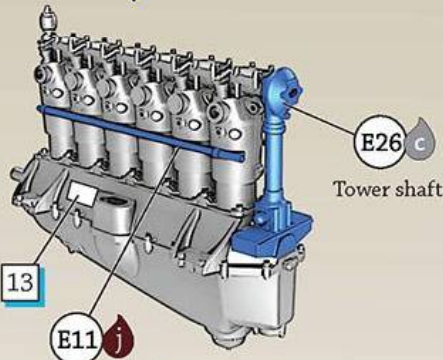
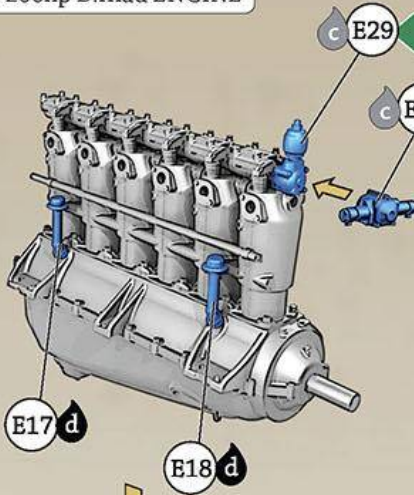
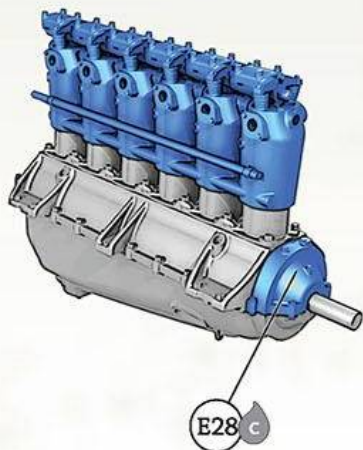
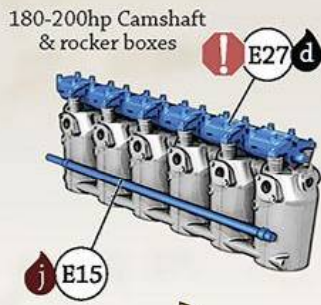
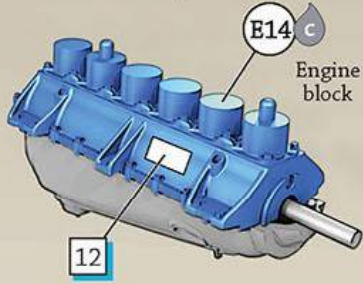
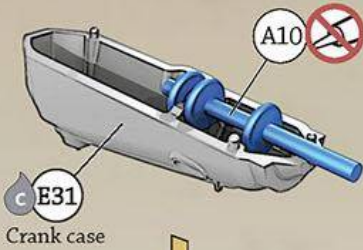
The sad wreckage of Royal Bavarian Jasta 34b Pfalz D.IIIa 8023/17. Note the darker tone of the fuselage interior and that the brackets on the instrument panel appear to be painted black while the ammunition magazines are unpainted aluminium. The seat appears to have a pouch of some sort fixed to its rear and is missing its cushion.

> The remains of early production Pfalz D.IIIa 4196/17 allow us a very rare glimpse inside the cockpit. From the 2nd production order for 300 D.III placed in June 1917 (numbers 4000/17 to 4299/17), 4196/17 was one of the first few production aircraft built to D.IIIa standards following the change in specifications. Note the control column and the darker tone of the cockpit interior walls.



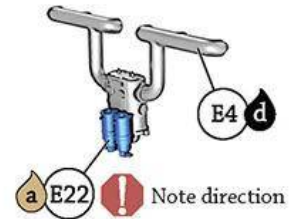
> Fuselage interior details from captured late production Pfalz D.III (not D.IIIa) 4184/17, stripped down for public exhibition in London's Agricultural Hall in 1918. Although Pfalz D.III 4184/17 is from the same production order as D.IIIa 4196/17 (above) there are various differences between the D.III and D.IIIa but several useful details are shown for the super detailer.

3 DAIMLER-MERCEDES 180hp D.IIIa & 200hp D.IIIaü ENGINE



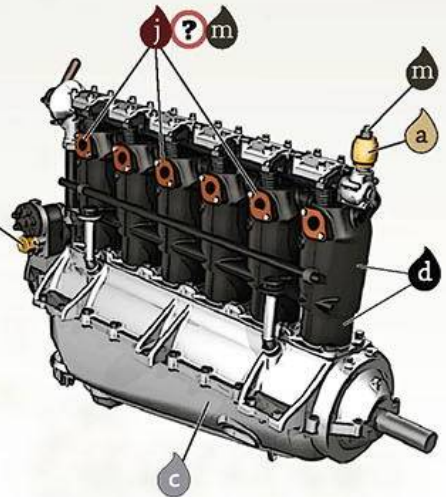
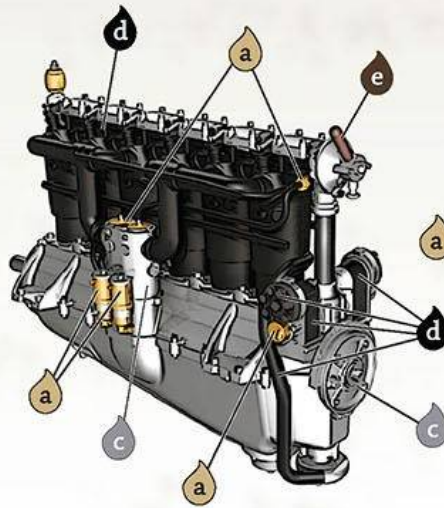
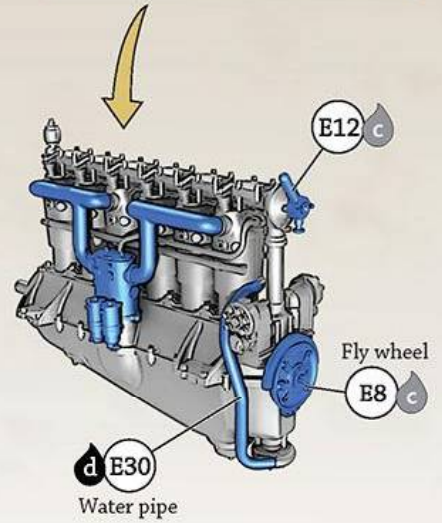
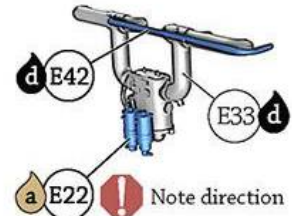
180hp D.IIIa

Intake manifold



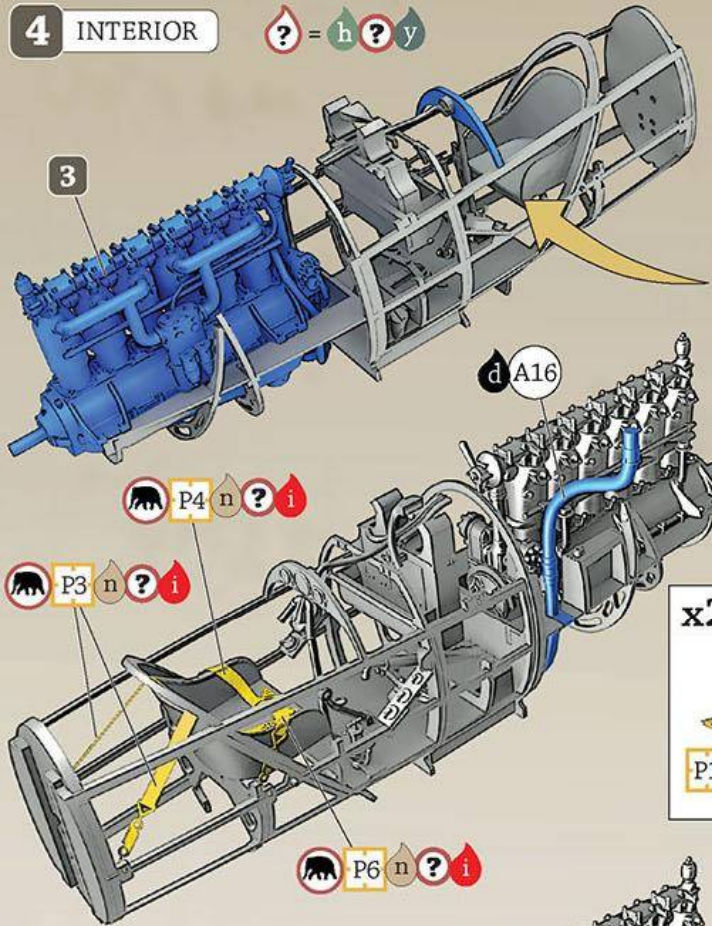
180hp D.IIIa & 200hp D.IIIaü

Water jacketed intake manifold



4 INTERIOR

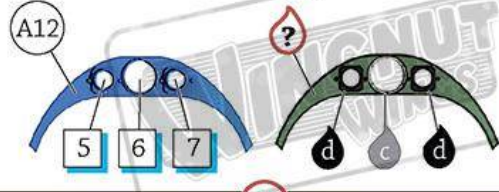
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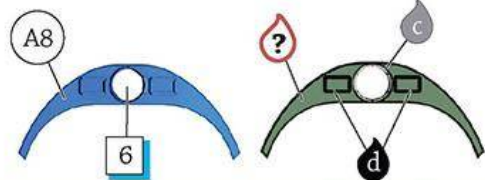
Paint harness buckles h

! A6 ?
Don't forget to install this part

Instrument board with additional gauges

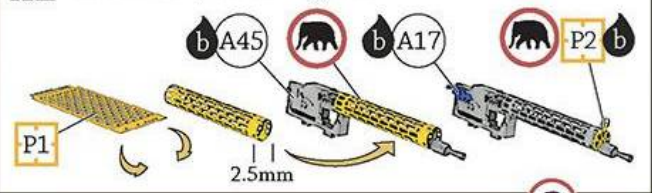


Instrument board

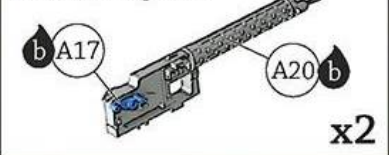


Anneal P1 to assist rolling into shape around a 2.5mm drill bit

x2 LMG 08/15 'Spandau' - high detail



LMG 08/15 'Spandau'



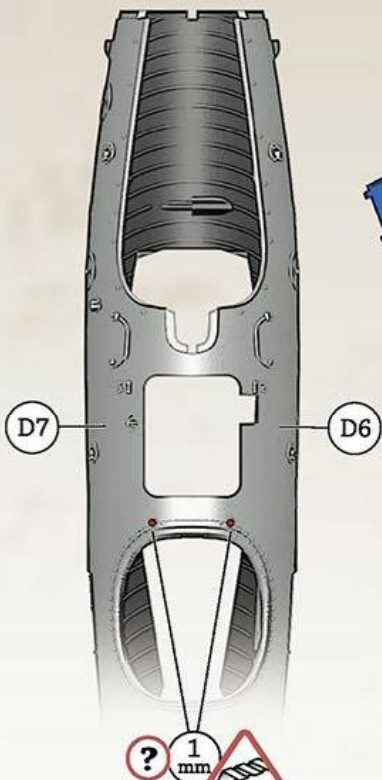
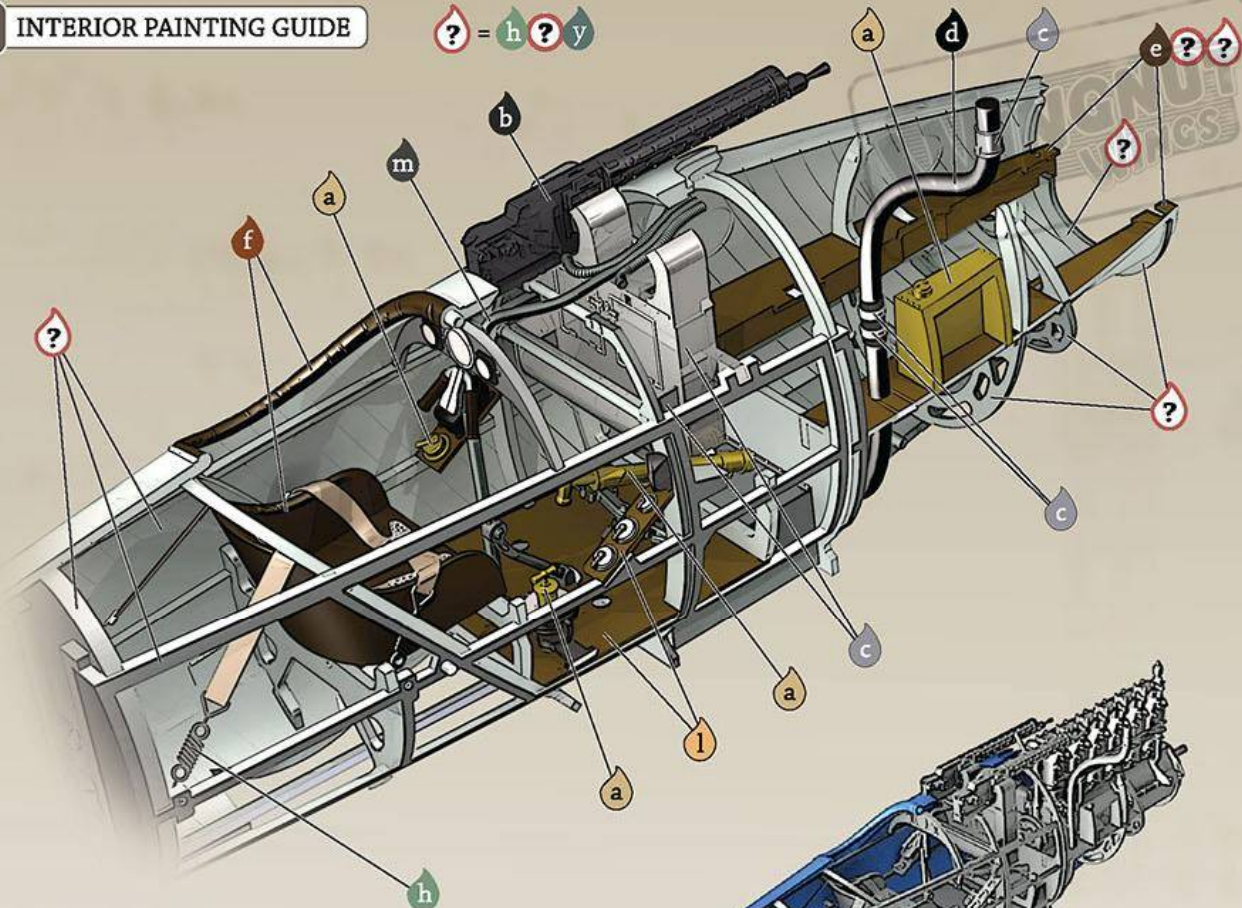
0.15mm

Rigging Diagram - rigging material not included

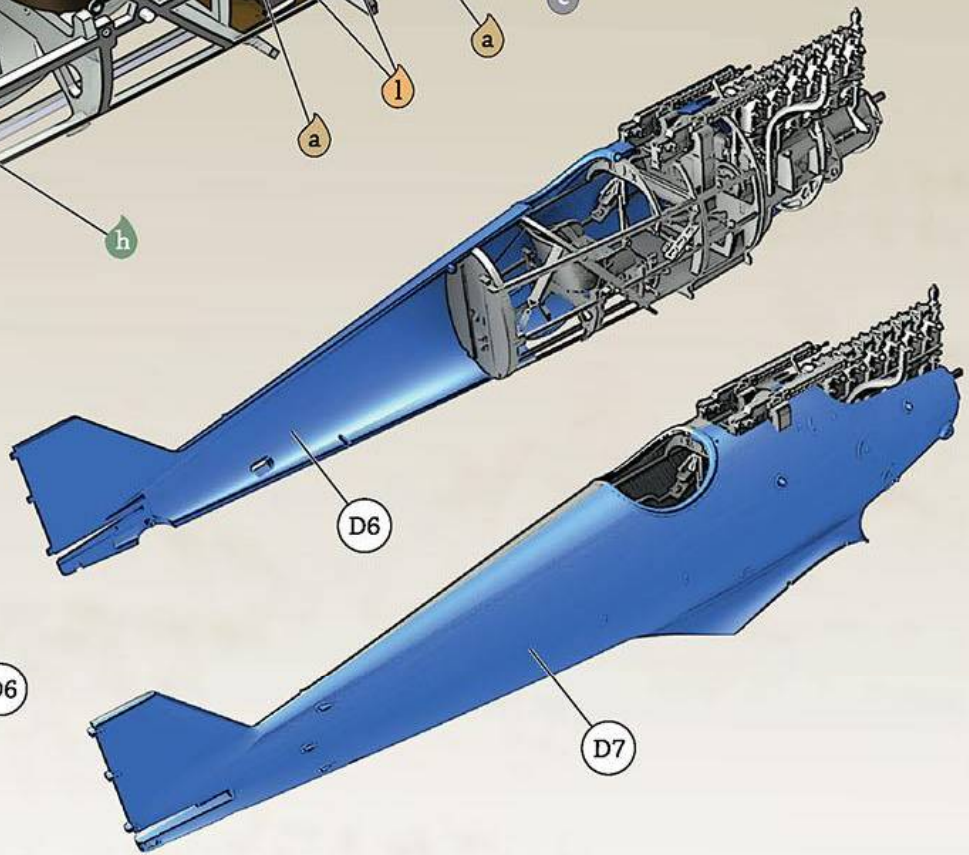
Instrument board and LMG 08/15 'Spandau' machine gun details from a late production Pfalz D.IIIa believed to be 8095/17. Note the Zak inspection stamp on the top wing cut out and pointed cabane strut end bracket.

5 INTERIOR PAINTING GUIDE

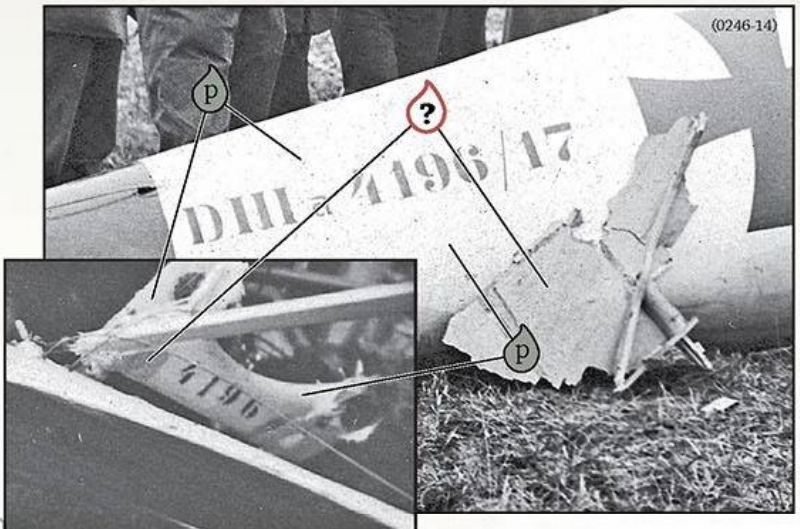
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Drill holes for optional windshield (C2)



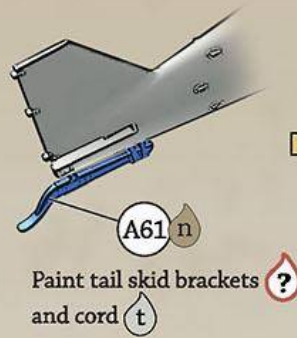
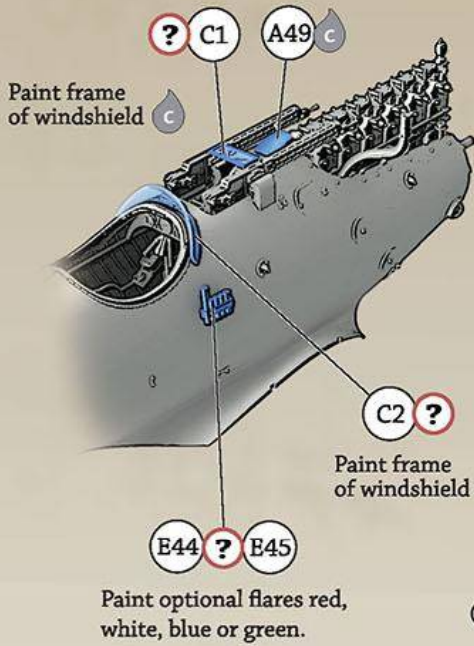
Another view of crashed Pfalz D.IIIa 4196/17. The piece of port side fuselage wreckage under the serial number shows its interior colour and contrasts markedly with the silver grey of the fuselage but matches the tone of the cabane strut brackets (inset) very well. This piece is from just to the rear of the seat, the front left harness strap would have been attached to a bracket fixed to the gap now present, just under the 7 in the serial number.



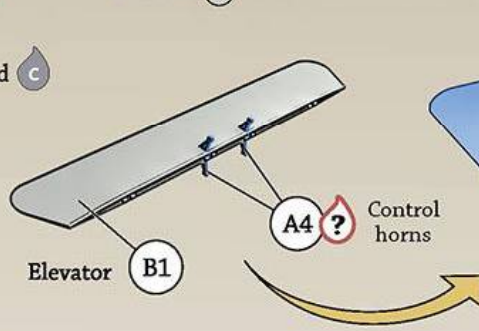
6 FUSELAGE DETAILS AND TAILPLANE

? = h ? y

If applicable to your chosen colour scheme (from around 8170/17 onwards) apply your lozenge camouflage decals to gloss painted (not just clear coated plastic) tailplane parts.



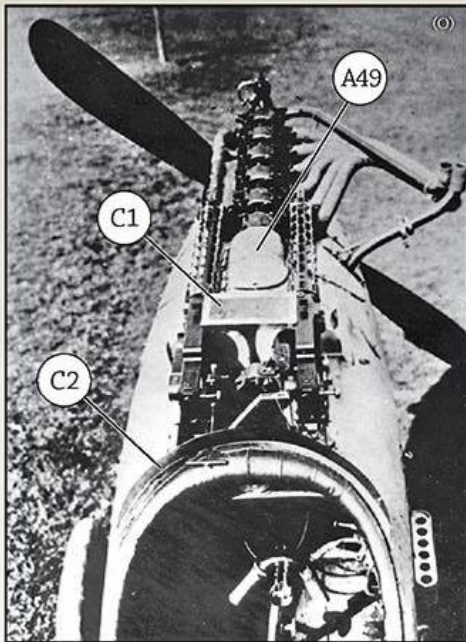
D3 Fabric covered horizontal tailplane



B6 Rudder

A3 ? Control horn

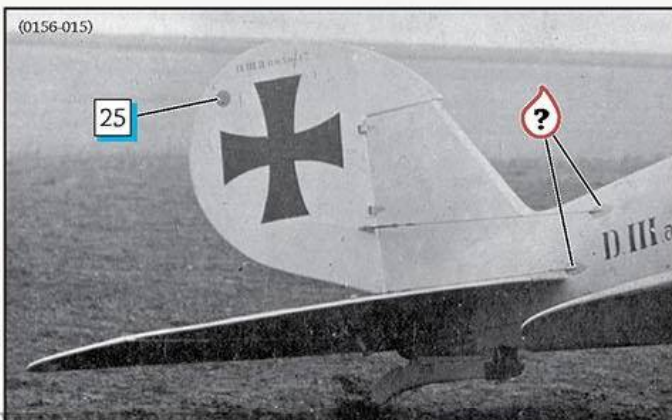
✓ Note the small rectangular windscreen mounted between the twin LMG 08/15 'Spandaus' on captured Pfalz D.IIIa 8033/17.



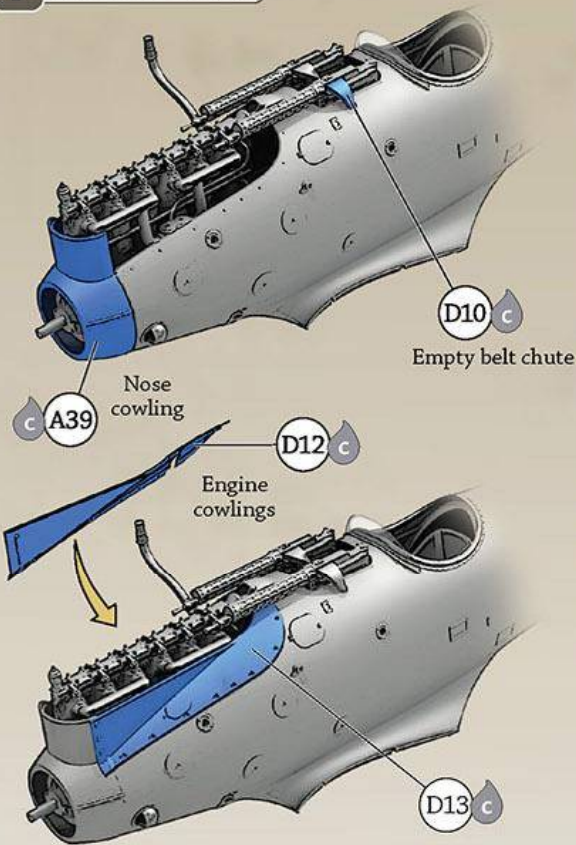
> Tailplane detail from Pfalz D.IIIa 4237/17. Note the aileron & elevator control cable exits in the fuselage, extended cord of the horizontal tailplane and the stenciling on the rudder.



< Tailplane detail from Pfalz D.IIIa 6050/17 displaying the Pfalz logo decal **25** and serial number stenciling on the rudder.



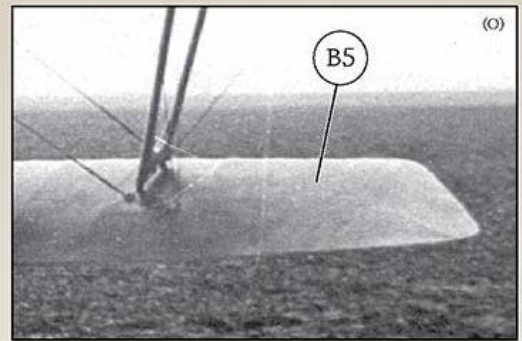
7 ENGINE COWLS



We recommend leaving (D12) & (D13) off your model to display the engine detail to its fullest.



Captured late production Royal Bavarian Jasta 35b Pfalz D.IIIa 8282/17 of Andreas Köhler. Note the word 'propeller' (20) stenciled on the spinner, arrows on the inspection covers, water jacketed intake manifold, partially modified fuselage cross and the fourth and final variation of weight table (34). Pfalz D.IIIa 8282/17 is from the 3rd production order placed in February 1918.



Angular tipped Pfalz D.III lower wings were used on the first half dozen or so Pfalz D.IIIa manufactured, in this case Max Hitschler's very early production Royal Prussian Jasta 18 Pfalz D.IIIa. The Pfalz D.III/IIIa bottom 'Nieuport half wings' featured traditional 2 spar construction thereby avoiding the structural failure of the single spar bottom wings of its contemporaries the Albatros D.III and D.V/Va.

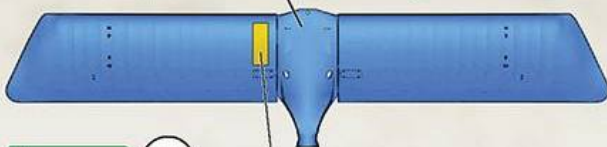
8 BOTTOM WINGS

If applicable to your chosen colour scheme (from around 8170/17 onwards) apply your lozenge camouflage decals to gloss painted (not just clear coated plastic) wing parts.

Very Early

B5
4190/17 to around
4200/17

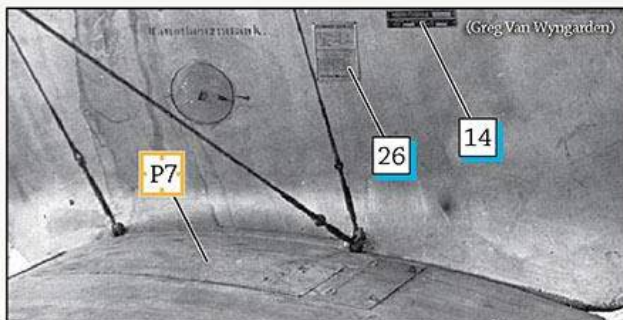
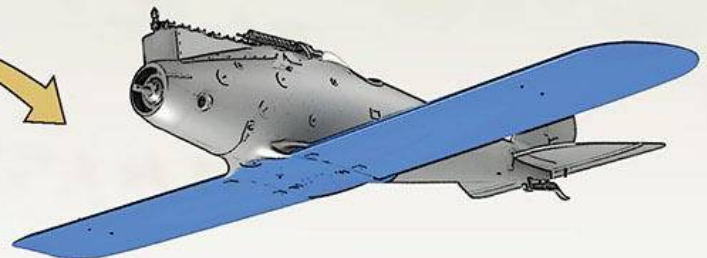
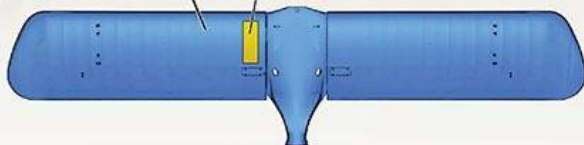
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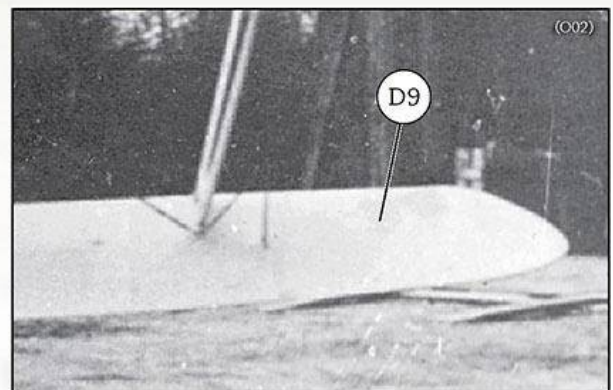
Common

D9
From around
4200/17 onwards

? P7



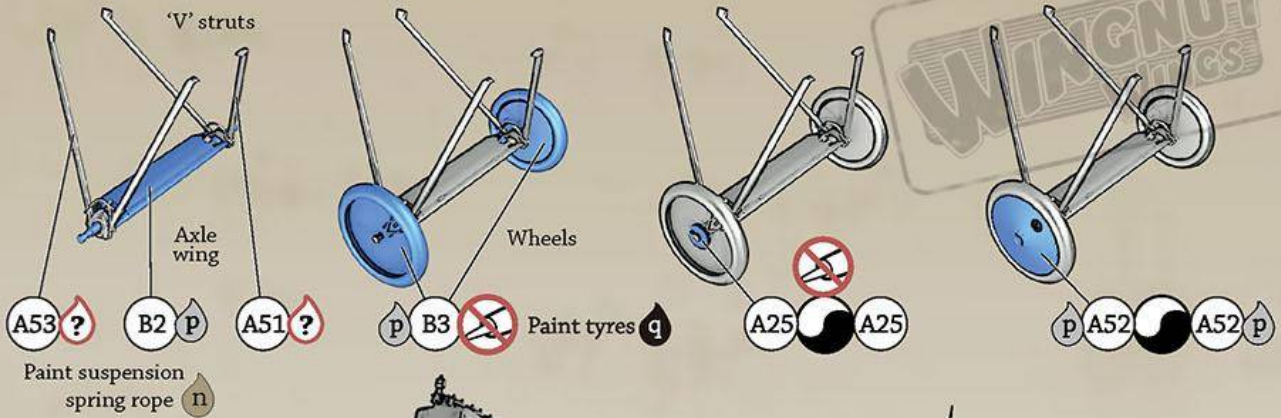
Wing root detail from Pfalz D.IIIa 4208/17 showing the aileron control cable access hatch and non slip foot plate detail (P7). Note the rigging diagram (26), makers plates (14) and how it fitting the trailing edge of the wing is at the fuselage.



Common style of Pfalz D.IIIa lower wing with rounded tip from Pfalz D.IIIa 8143/17.

9 UNDERCARRIAGE

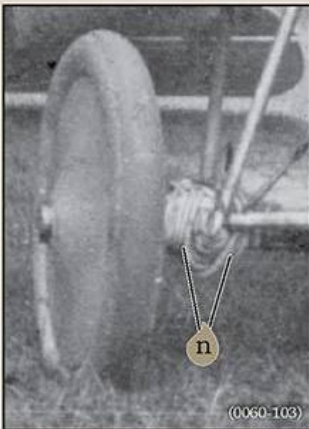
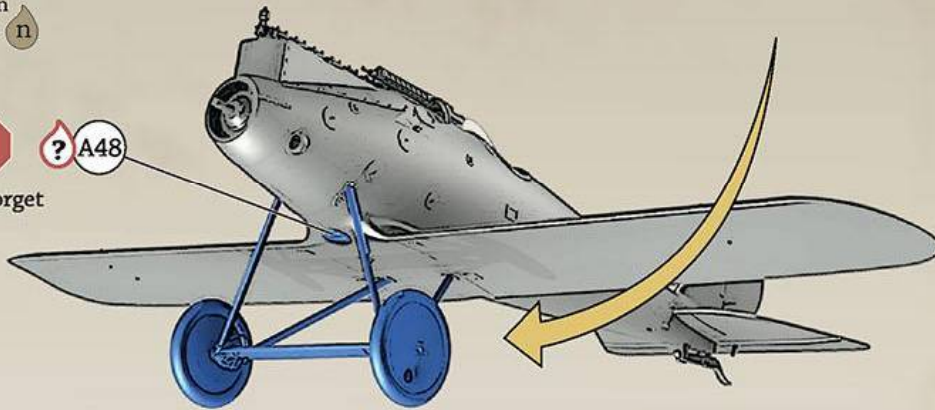
? = h ? y



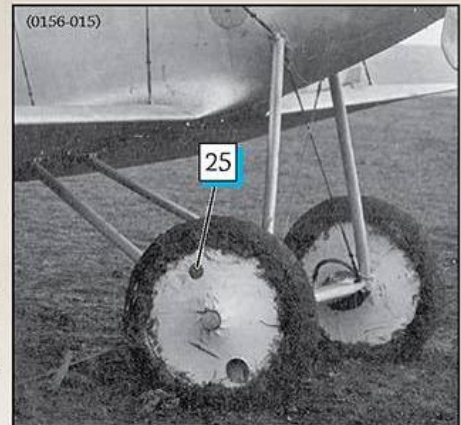
Paint suspension spring rope n

! Don't forget

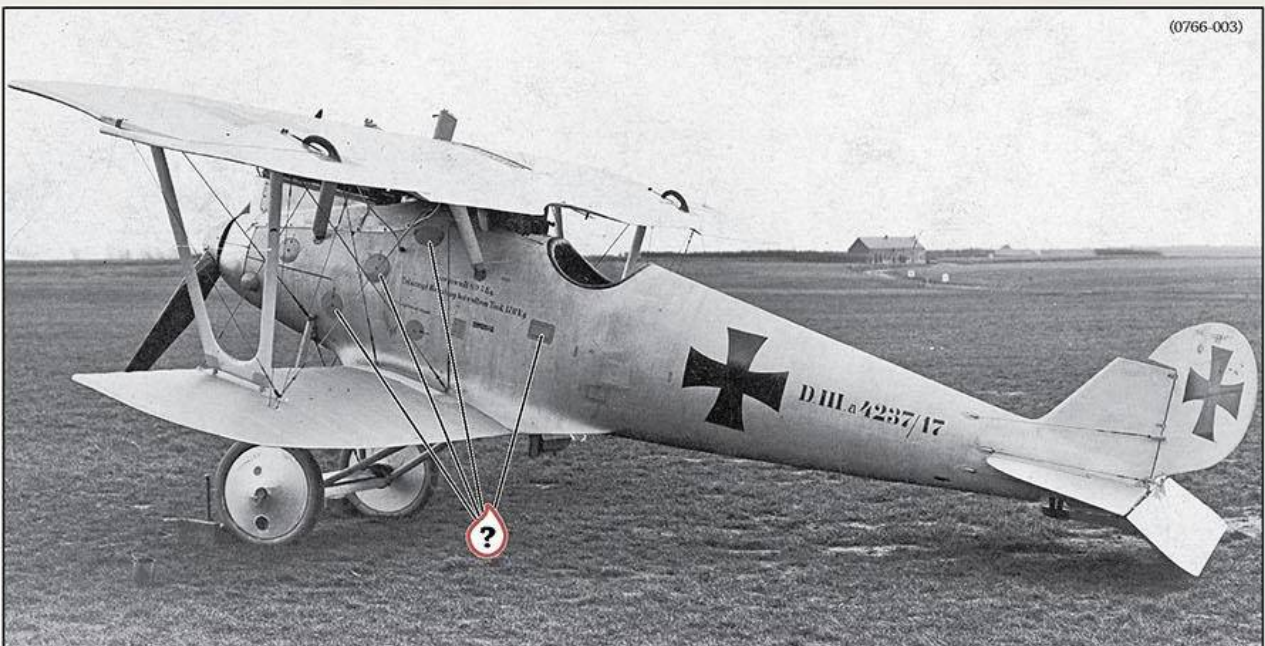
? A48



< Wheel detail from captured Pfalz D.IIIa 8151/17 showing its suspension shock cords. Despite the appearance of rubber bungee cords these were in fact coiled springs with a woven 'rope' cover.



> Undercarriage detail from Pfalz D.IIIa 6050/17 as seen on page 14. Note the Pfalz factory logo decal [25] on the wheel cover and the protective canvas bag over the suspension shock cords.



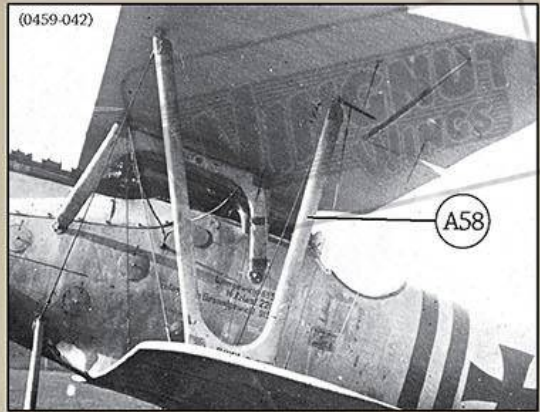
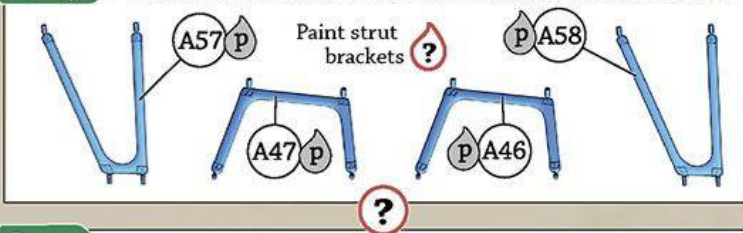
Factory fresh early production Pfalz D.IIIa 4237/17 is from the 2nd production order for 300 D.III (not D.IIIa) placed in June 1917 (numbers 4000/17 to 4299/17) which was changed part way through production to D.IIIa specifications with numbers 4190/17 to 4299/17 being completed as D.IIIa. It is believed that Pfalz D.IIIa 4237/17 went on to serve in Royal Saxon Jasta 24s.

10 STRUTS

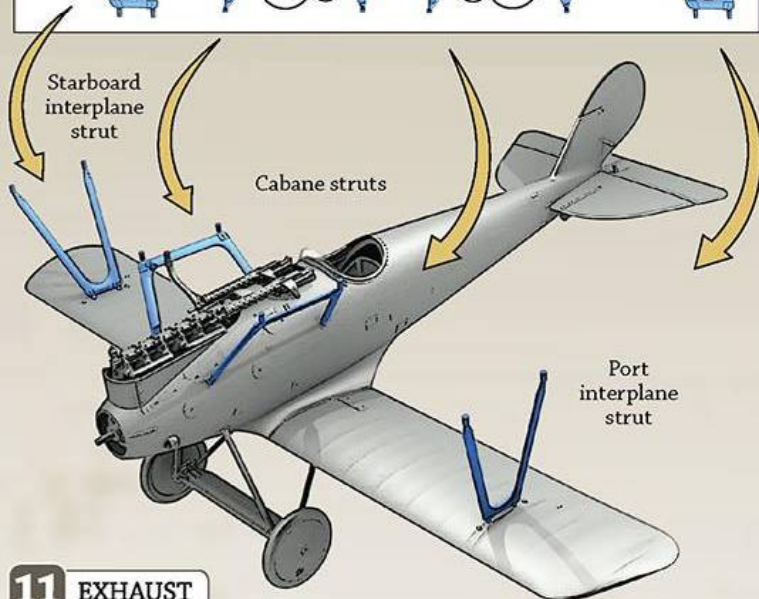
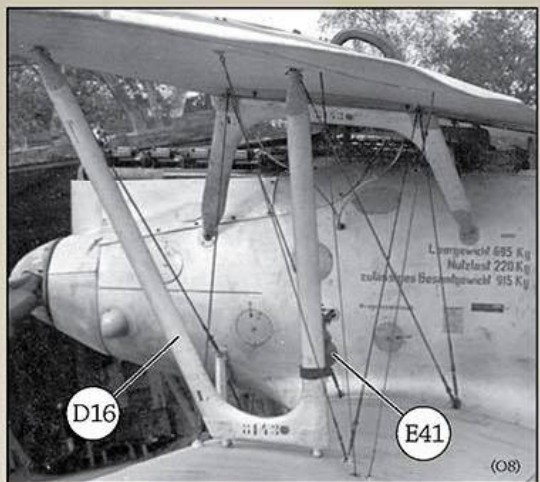
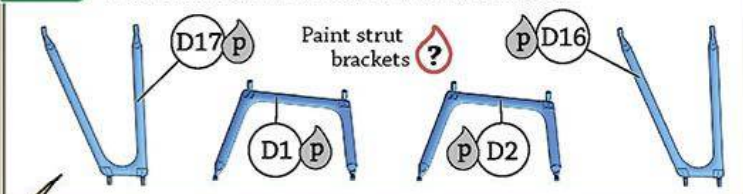
Early struts with blunt ends from captured Pfalz D.IIIa 8033/17. Note the slight 'bow' in the bottom wing, the repair patch below the cockpit and that the rigging diagram [26] and makers plates [14] have been souvenired.

? = h ? y

Early 4190/17-4289/17, 5854/17-6053/17 & 8000/17 to around 8040/17

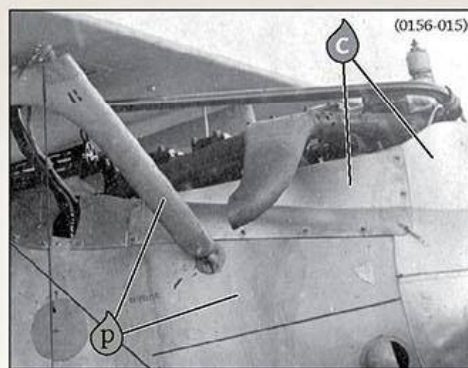
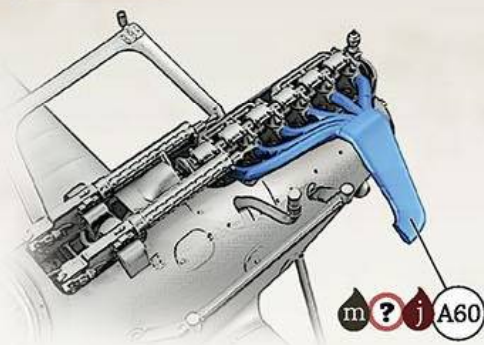


Late From around 8040/17-8339/17 & 1250/18 onwards



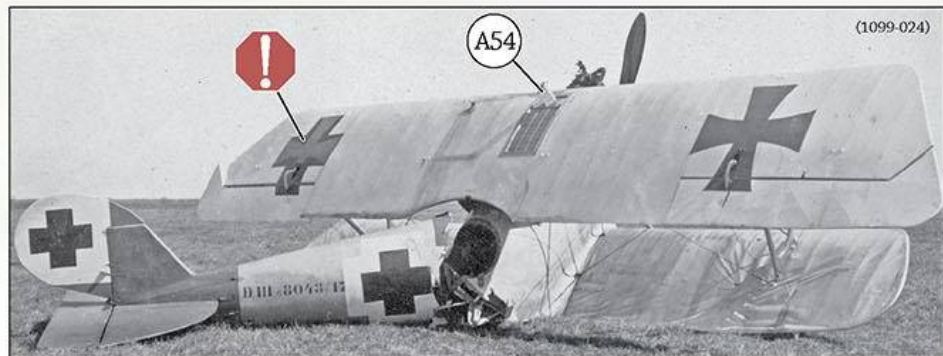
Late style struts with pointed ends from Pfalz D.IIIa 8143/17. Note the wing strut lower brackets appear to have been over painted with silver grey. The remaining strut brackets retain their original colour which has also been carried into the small gaps normally left silver grey, indicating that they were probably painted after being assembled onto the struts. Note the anemometer attached to the rear strut, rigging and various stencil details including a third variation of the weight table [33].

11 EXHAUST



< Common style of Pfalz D.IIIa exhaust as seen on 6050/17. The engine side and nose cowlings are unpainted aluminium C.

> Crashed Pfalz D.IIIa 8043/17 is from the 3rd production order placed in January 1918 for 340 aircraft (numbers 8000/17 to 8339/17) and features late production sharp pointed strut end brackets (confirmed by another photo taken of this scene). The wings are finished in silver dope and the fuselage with silver paint. The original semi-gloss eisernkreuz markings have been partially converted to post April 1918 balkenkreuz using white (on the fuselage & tailplane) and matt black paint. Eisernkreuz markings remain on the starboard wing positions. The unidentified unit and personal markings consist of the spinner, nose cowling, struts, tailpane and a band around the fuselage behind the cockpit all finished in what appears to be a "similar colour"



12 TOP WING ANDAILERONS

? = h ? y

Fuel lines from gravity tank

k A59

B7 Starboard aileron

? E39 c

Mirror

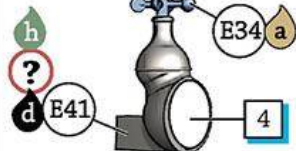
B8

Port aileron

A54 ? A19 ?
Paint radiator surround c

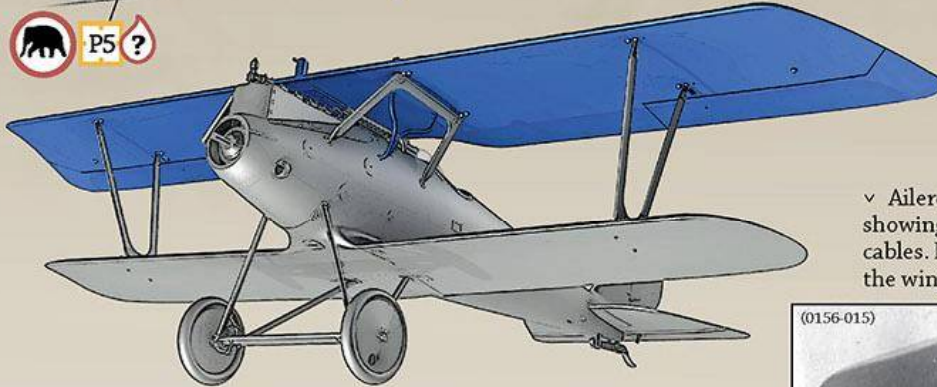
B4

? Anemometer



∨ Aileron detail from Pfalz D.IIIa 6050/17 showing the control and wingtip bracing cables. Note the relatively large space between the wing and aileron.

P5 ?



(0156-015)

B7

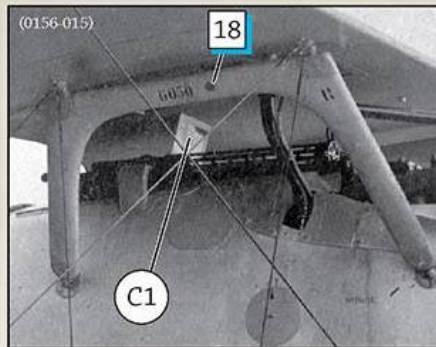


^ Pfalz D.IIIa 4215/17 of Armin Undiener. Note the fuel lines leading down from the gravity tank built into the ply covered centre section of the upper wing. Also note the large Pfalz logo decal [25] on the rear cabane strut and the first style of weight table [31].

> Cabane strut detail from Pfalz D.IIIa 6050/17. Note the small Pfalz logo decal [18], stencils [16], [22] & [99] and early style blunt ends of the cabane struts, which appear to be painted in the same colour as the inspection hatch.

(0156-015)

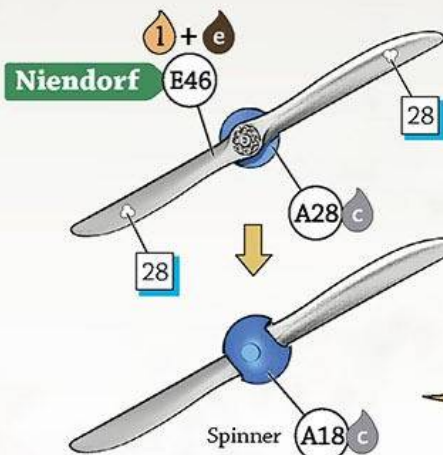
18



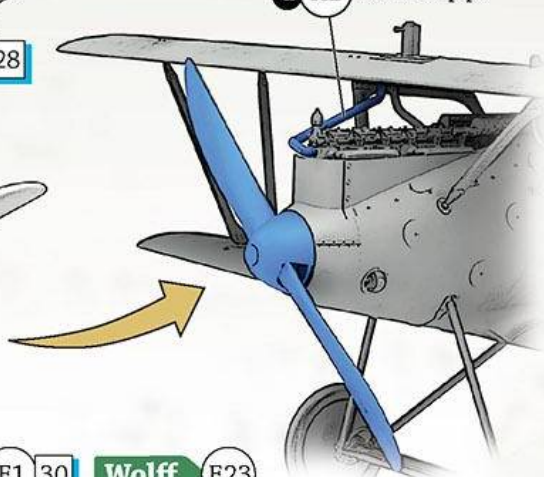
(0156-015)

13 FINAL ASSEMBLY, PROPELLER & SPINNER

Propellers were frequently damaged and replaced. While a photo may show a particular aircraft with a particular propeller it usually would not last very long and there is no guarantee that it would be replaced with another from the same manufacturer.



d A1 Radiator pipe



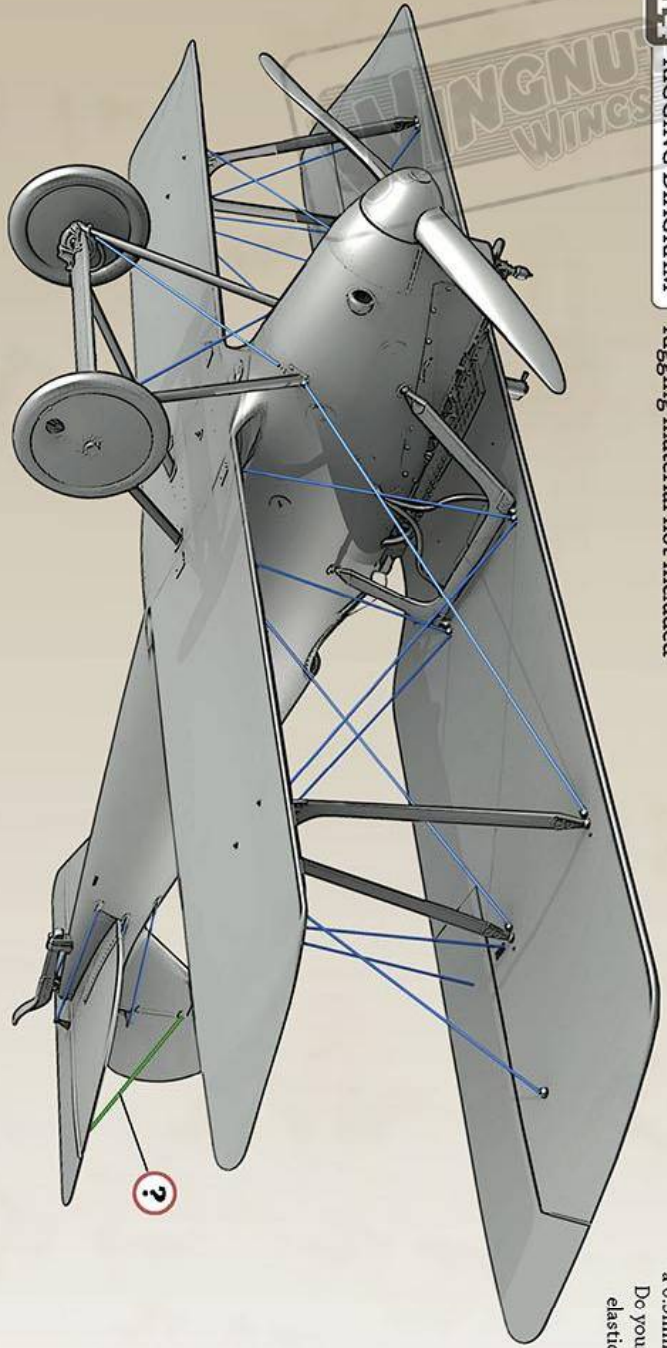
^ Propeller and spinner detail from Pfalz D.IIIa 6050/17. Note the serial number 6050 stenciled on the unpainted spinner and the location and orientation of the Axial propeller decal [27]. In some photos a Pfalz factory logo decal [25] is visible on the blunt tip of the spinner.

Not shown

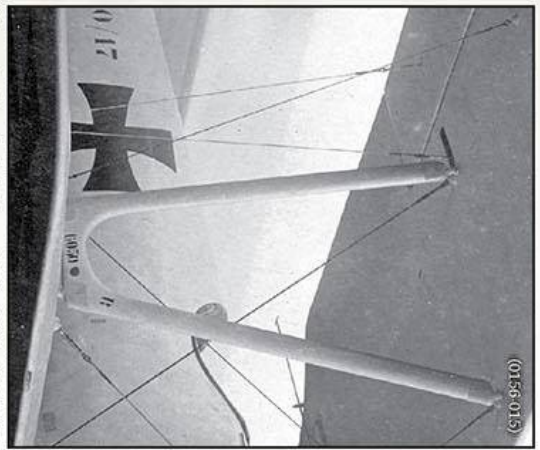
Axial E24 27 Heine E1 30 Wolff E23

14 RIGGING DIAGRAM

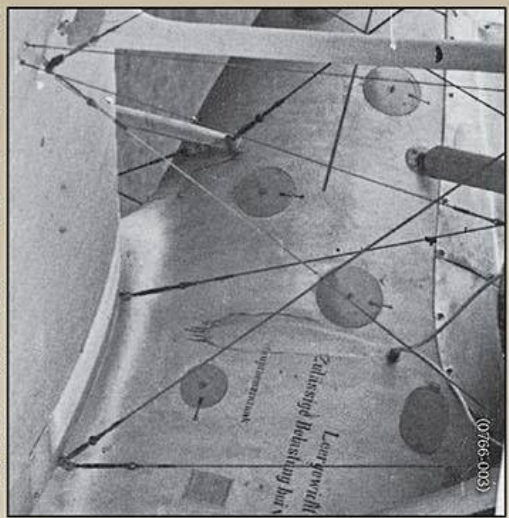
Rigging material not included



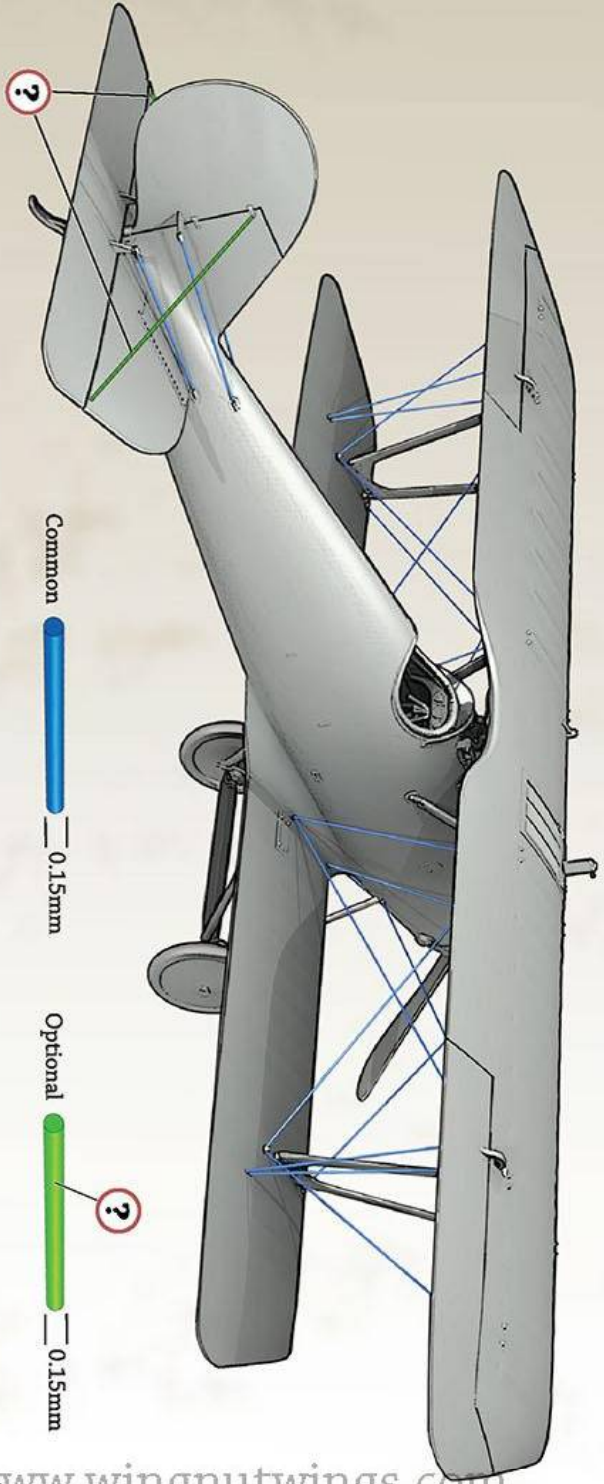
If you choose to install the rigging on your model please drill out all location holes with a 0.5mm drill bit to a depth of at least 1mm to remove paint and improve adhesion. Do yourself a favour and make the rigging as simple as possible by using stretchy elastic type material like "EZ Line" etc and not trying to replicate turnbuckles.



Wing rigging detail from Pfalz D.IIIa 6050/17.



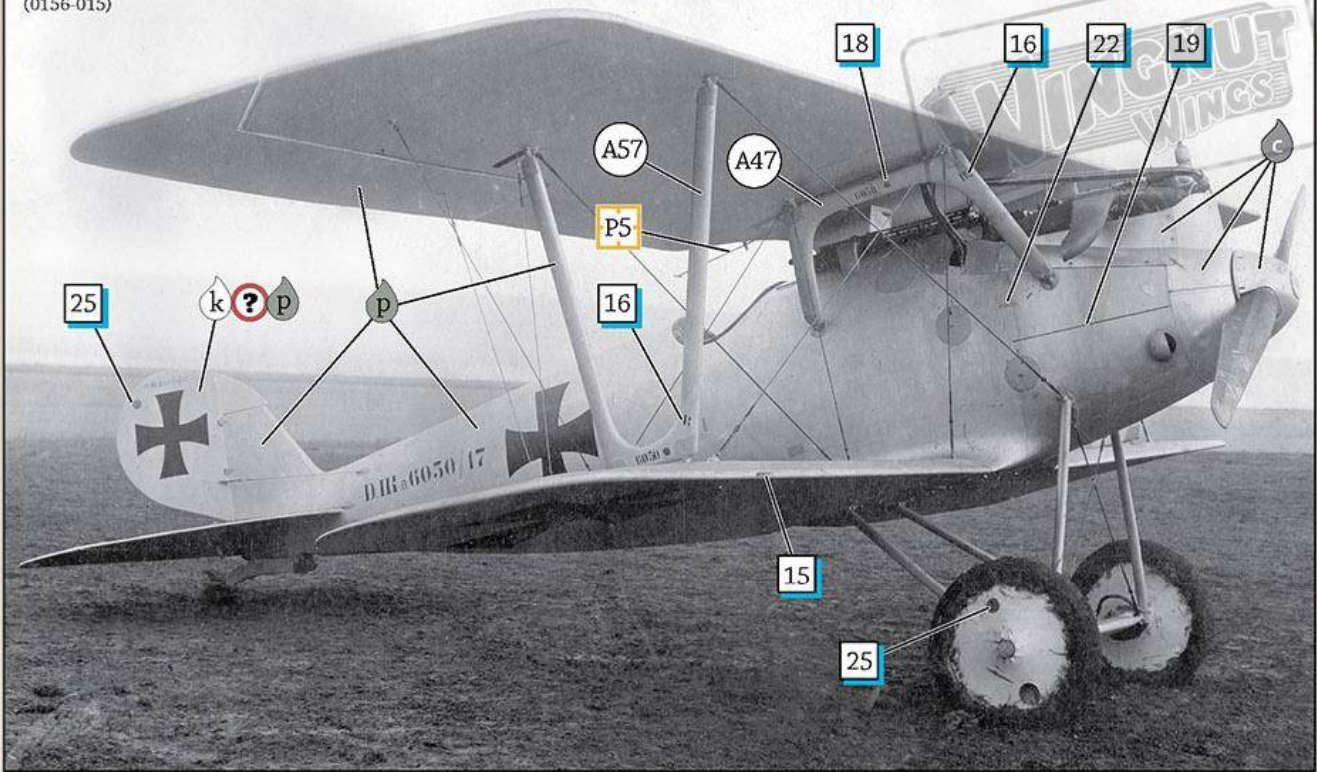
Wing rigging detail from Pfalz D.IIIa 4237/17 as seen on page 10.



Common  0.15mm

Optional  0.15mm

(0156-015)



Pfalz D.IIIa 6050/17 is from a production order placed in September 1917 for 200 D.IIIa (numbers 5854/17 to 6053/17). Note the extended radiator shutter handle **P5** above the cockpit, the makers plate **15** on the leading edge of the starboard bottom wing and the datum line **19**.



Product Design by Rhys Clapcott

Born in the sunny Hawkes Bay of New Zealand, Rhys moved to Wellington in 2000 to complete a Bachelor of Design. After graduating in 2004, Rhys joined Weta to work on the television series "Jane and the Dragon." After working on a variety of projects for Weta, Rhys worked for Wingnut Wings from 2006 until 2008. He enjoys doing anything creative in his free time, from painting, to 3D modeling and animating. But he is also a computer gamer so a lot of his spare time is taken up trying to keep up on the latest releases.



Product Manager, 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. 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 have any questions about this model, comments, requests or suggestions, Richard is contactable at richard@wingnutwings.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.

Visit Ronny's Facebook page - www.facebook.com/RONNY-BAR-Aircraft-Profiles-166538664131/



Decal Art by Malcolm Laird

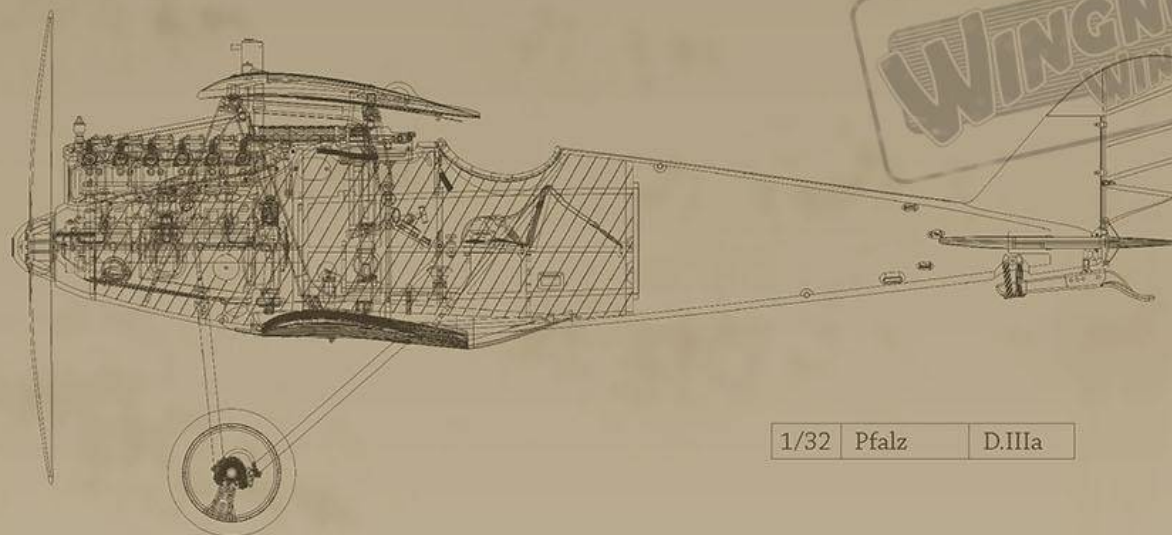
Malcolm has been in the scale model industry since 1981 and now produces his line of Ventura decals and a range of soft cover aviation books mainly with a Kiwi flavour. Outside work he suffers the dual afflictions of restoring old Kawasaki motorcycles and trying to paint impressionist landscapes, with 'mixed' results so far.

Visit Malcolm's web site at www.venturapublications.com.

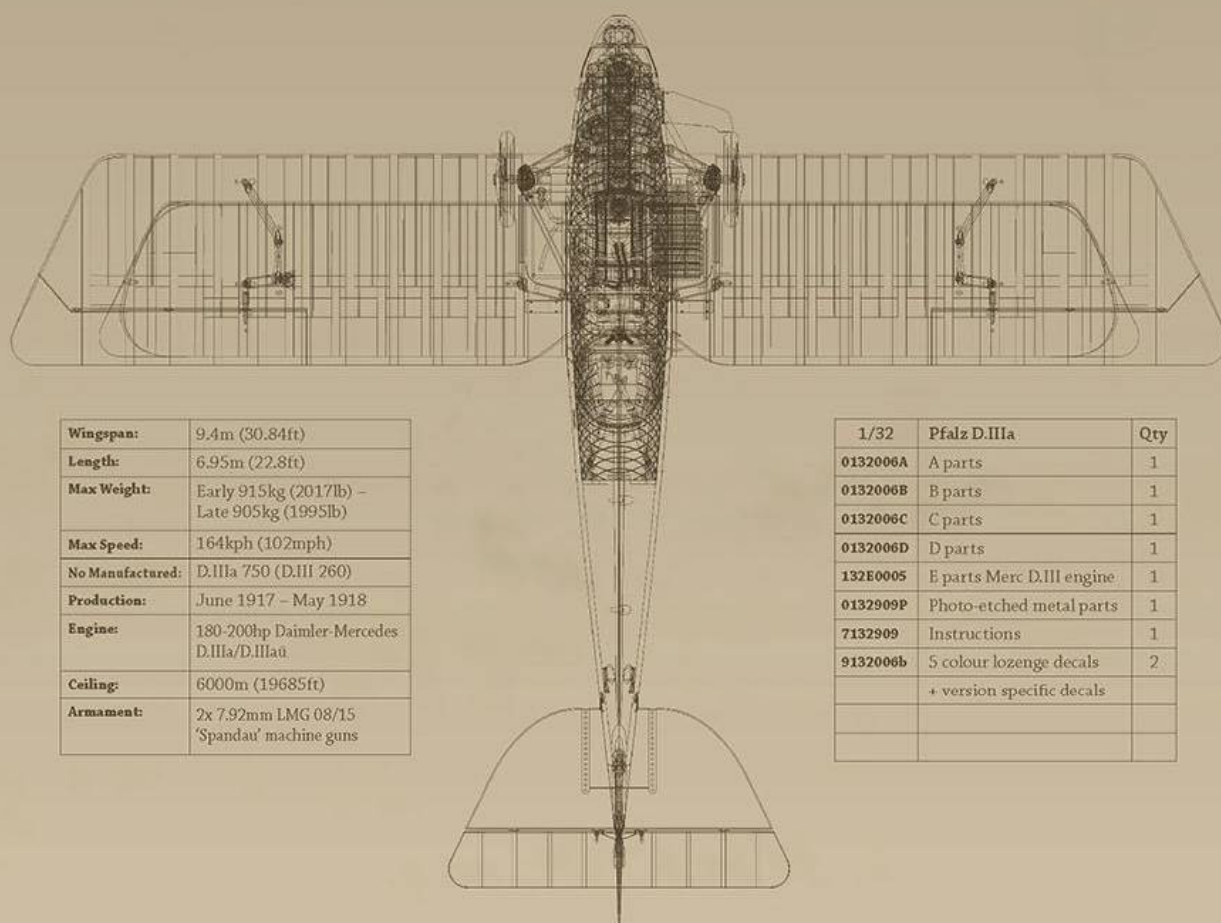
Errata - Please check our website in case there are any corrections and updated information regarding this model.

30019 **A** **u** = XF2(x10) + XF18(x1) 34(x10) + 96(x1)

30019 **B** Use lozenge decals on wings and tailplane.



1/32 Pfalz D.IIIa



Wingspan:	9.4m (30.84ft)
Length:	6.95m (22.8ft)
Max Weight:	Early 915kg (2017lb) - Late 905kg (1995lb)
Max Speed:	164kph (102mph)
No Manufactured:	D.IIIa 750 (D.III 260)
Production:	June 1917 - May 1918
Engine:	180-200hp Daimler-Mercedes D.IIIa/D.IIIau
Ceiling:	6000m (19685ft)
Armament:	2x 7.92mm LMG 08/15 'Spandau' machine guns

1/32	Pfalz D.IIIa	Qty
0132006A	A parts	1
0132006B	B parts	1
0132006C	C parts	1
0132006D	D parts	1
132E0005	E parts Merc D.III engine	1
0132909P	Photo-etched metal parts	1
7132909	Instructions	1
9132006b	5 colour lozenge decals	2
	+ version specific decals	

If you have any damaged or missing parts please contact help@wingnutwings.com for assistance.

www.wingnutwings.com

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