

WINGNUT WINGS



Albatros D.V "Manfred von Richthofen"

Johannisthal based Albatros Flugzeugwerke GmbH were responsible for some of the most graceful and effective fighters of the Great War. Their twin gun, semi-monocoque plywood fuselage Albatros D.I, powered by a 160hp Daimler Mercedes D.III engine, arrived at the front in September 1916 and achieved instant air superiority over its main opposition of Nieuport 11 and DH.2 fighters. Followed immediately by the slightly improved D.II and in December 1916 by the much improved D.III, with its V strutt sesipplane wing greatly influenced by the successful Nieuport fighters. The D.III was more maneuverable than the D.II and its single spar lower 'half' wing afforded greater visibility for the pilot but was also the cause of numerous, frequently fatal, structural failures. Despite much effort this problem was never fully resolved. Nevertheless the D.III remained in production well into late 1917.

Even as the excellent D.III went into production plans were underway for its successor, the Albatros D.V. Retaining the wings of the D.III but with aileron controls through the upper wing and with a redesigned fuselage completely oval in section, the D.V was arguably the best looking of all Albatros designs. Unfortunately the D.V inherited the lower wing structural failure problem of the D.III and turned out to not be any real improvement over it performance wise either. Despite this, the Albatros D.V and the D.Va (with aileron controls cables reverted to D.III configuration), were manufactured in greater numbers than any previous German fighter of the war (only surpassed later by the Fokker D.VII, of which Albatros manufactured the great majority).

The Albatros D.V weighed 620kg empty when production commenced in April 1917 but, following strengthening, the empty weight had increased to 680kg before production of the D.Va started in August 1917. While Johannisthal built D.Va remained 680kg throughout production, those ordered from Ostdeutsche Albatros Werke (OAW) in September-October 1917 weighed in at 717kg empty, almost 100kg heavier than the initial D.V. When the Albatros D.V started appearing at the front in May 1917 it was effectively outclassed by the improved SE.5a, Sopwith Camel and SPAD fighters being fielded by the allies at the time. Even after the introduction of the superb Fokker D.VII the Albatros D.V and D.Va could still be found equipping front line units, although most had been relegated to training or home defense duties by the time of the Armistice. Any history of Manfred von Richthofen "The Red Baron" and this important aircraft here is of necessity very brief, therefore we encourage you to seek out any, or all, of the reference books 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. Albatros D type fuselages were usually clear varnished resulting in a yellowish plywood colour. The fabric covered wings and tailplane of the Albatros D.V were finished in either of 2 ways, painted with green and mauve/lilac on top and light blue underneath or covered in pre-printed 5 colour lozenge camouflage fabric. Metal fittings were painted in pale grey-green, as was much of the engine bay. Exterior metal panels, brackets and struts were usually painted in this same pale grey-green. There was considerable freedom for German units to apply their own colour schemes to their aircraft to aid identification at a distance. Manfred von Richthofen's various Albatros D.III, D.V and (later) Fokker Dr.1 usually featured prominent red markings, initially as his personal colour (based on the piping on the uniform of his previous Ulanen-Regiment Nr.1) and then as the marking of Jasta 11 after he took command.

Richard Alexander 2018

Wingspan: 9.00m (29' 6")	Length: 7.33m (24' 0.5")	Max Weight: (D.V) 755kg - 915kg	Max Speed: 170kph (106mph)
No. Manufactured: (D.V) 900 (D.Va) 1662	Production: (D.V) April 1917 - early 1918	Armament: 2x 7.92mm LMG 08/15 'Spandau'	
Ceiling: 6250m (20500')	Engine: 160hp Daimler-Mercedes D.III		

References:

Windsock Datafile 3 Albatros D.V, Ray Rimell, 1987 - Albatros Fighters Windsock Datafile Special, Ray Rimell, 1991 - Squadron Signal Albatros Fighters in Action, John F Connors, 1981 - Australian War Memorial Museum, Canberra, Australia - Windsock Richthofen, AE Ferko 1995 - Red Baron The Life and Death of an Ace, Peter Kilduff, 2009 - The Blue Max Airmen Vol 5 Manfred von Richthofen, Lance J Bronnenkant PhD 2014 - Inside the Victories of Manfred von Richthofen volume 1 & 2, James F Miller, 2016 - Ace Profiles #3 Manfred von Richthofen, James F Miller 2009 - The Vintage Aviator LTD - 1914-18 Aviation Heritage Trust - Private Collections.

Albatros D.V "Manfred von Richthofen"

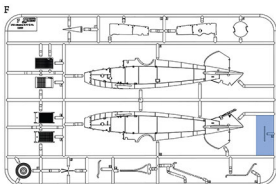
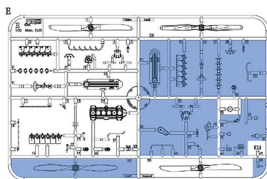
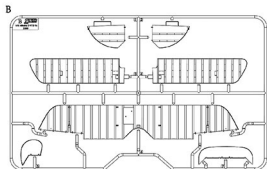
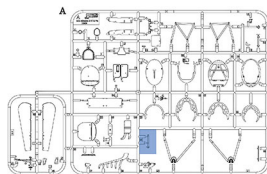
- Warning:** Choking hazard. Keep small parts and plastic bags away from children. Use glue and paint in a well ventilated area. Always wear protective eyewear when cutting and a protective mask when painting, gluing and sanding. Do not breathe dust from polyurethane resin parts (if included). Beware 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	Light Blue - gloss	XF2(x10) + XF18(x1)	130(x10) + 96(x1)	25550
h	Rubber - matt	XF69	66	35042
i	Light Grey - matt	XF19	64	36463
j	Light Grey Green - semi gloss	XF76	240	24424
k	Red - matt & gloss	X7(x5) + XF9(x1)	-	-
l	Rust - matt	XF9	113	20045
m	White - semi gloss	XF2	130	
n	Light Wood* - gloss	XF59	93	30475
o	Mauve - semi gloss	X16(x2) + XF52(x1)	68(x5) + 29(x1)	
p	Steel	XF56	27003	
q	Clear Doped Linen - semi gloss	XF55	148	26360
r	Dark Grey Green - semi gloss	XF65	116	34159
s	Copper	XF6	12	
t	Lilac - semi gloss	X16(x1) + XF52(x1) + XF2(x2)	-	27144
u	Olive Green - matt	XF61	30	34079
v	Venetian Red - semi gloss	XF9	113	20061
w	Fokker Beige - matt	XF60	83	33440
x	Yellow - semi gloss	X6	18	22246
y	Green - matt & gloss	X28	208	14193
z	Pale Green - semi gloss	XF71	78	24227

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



D x2



= Not Used

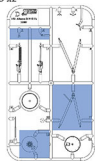
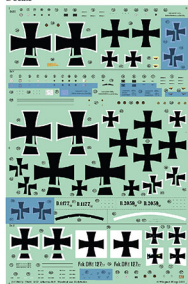


Photo Etch



Decals

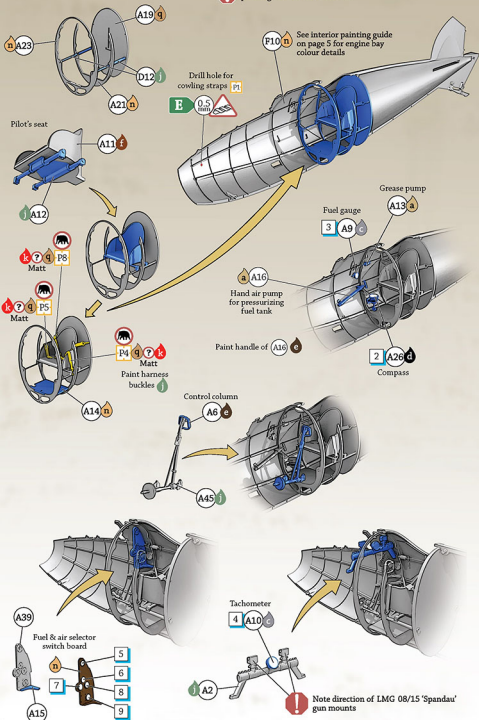


Figure

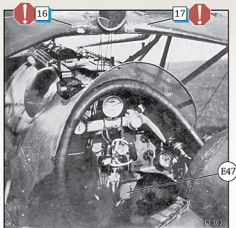
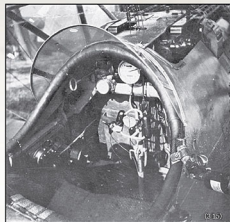
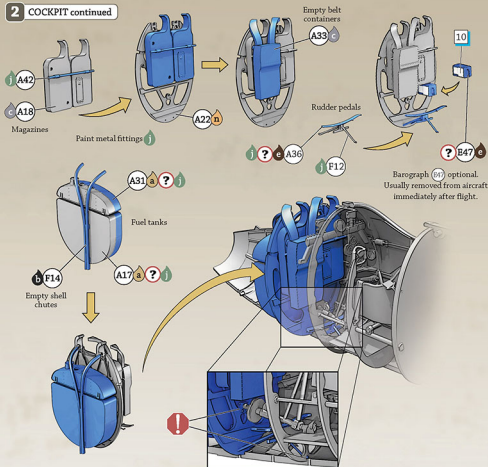


1 COCKPIT

! Please see our website for hints and tips on painting realistic wood colours.



2 COCKPIT continued

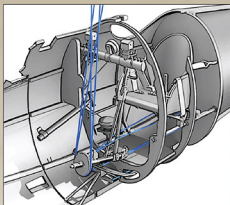


Cockpit details from a Royal Prussian Jasta 31 Albatros D.V. Note the pilot's goggles dangling from the all important tachometer attached to the center of the LMG 08/18 'Spandau' mount, with an altimeter to the left and clock to the right. Also note the barograph (E47) suspended below the instrument board, mirror (E4), D.V. specific headrest (F1) & aileron control cables, the Eislefeld flare gun attached to the right of the cockpit and the data plates attached to the rear of the top wing cut out.

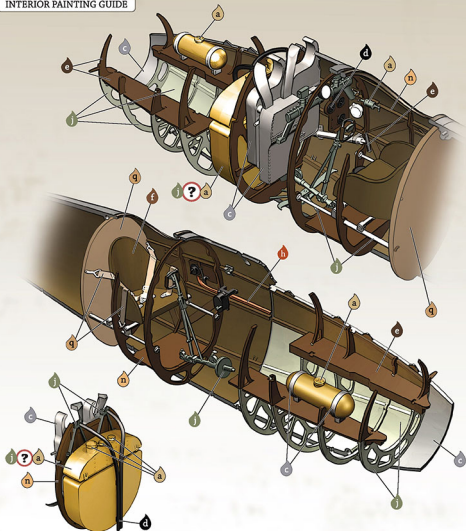
RIGGING GUIDE

Rigging material not supplied

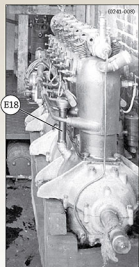
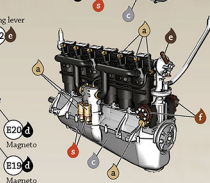
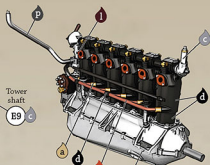
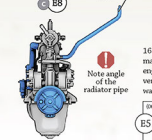
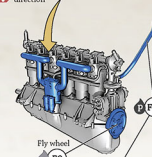
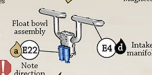
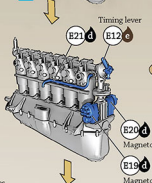
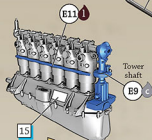
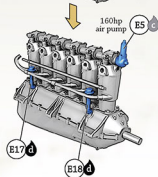
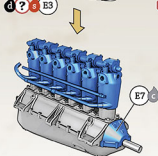
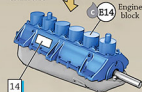
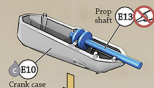
0.15mm



INTERIOR PAINTING GUIDE



3 DAIMLER-MERCEDES 160hp D.III ENGINE



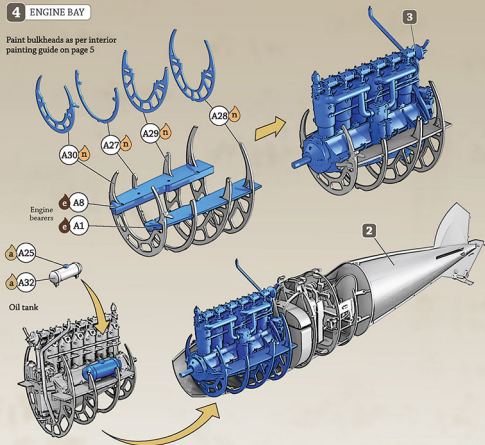
160hp Daimler-Mercedes D.III engine undergoing maintenance. This is the most common type of engine fitted in the Albatros D.V. Note the thin vertical air pump **E5** at the front and the exposed water pipe **E3** on the starboard side of the cylinders.



> 160hp Daimler-Mercedes D.III engine from **E**. Note the rivets from where the cowling has been repaired.

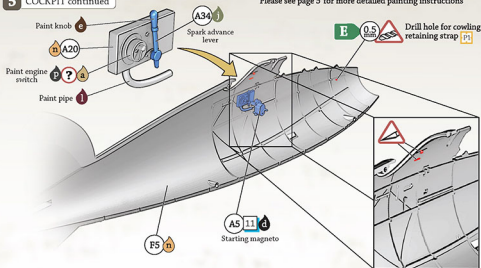
4 ENGINE BAY

Paint bulkheads as per interior painting guide on page 5



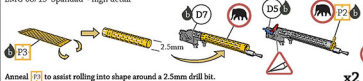
5 COCKPIT continued

Please see page 5 for more detailed painting instructions

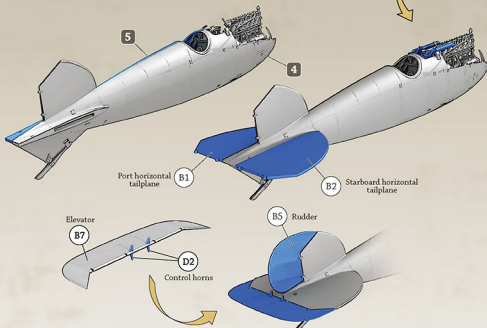


6 FUSELAGE ASSEMBLY AND TAILPLANE

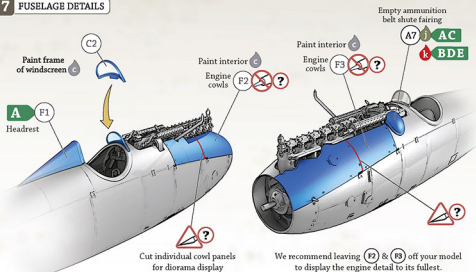
LMG 08/15 'Spandau' - high detail



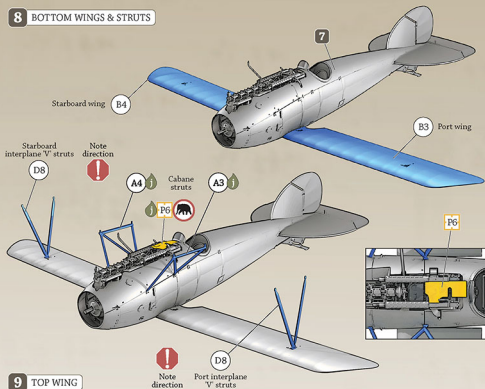
LMG 08/15 'Spandau'



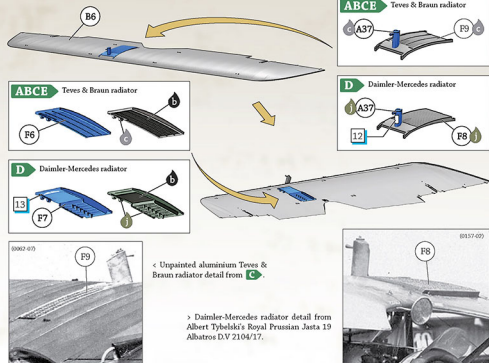
7 FUSELAGE DETAILS



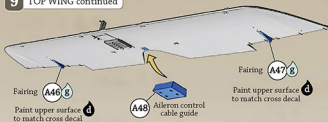
8 BOTTOM WINGS & STRUTS



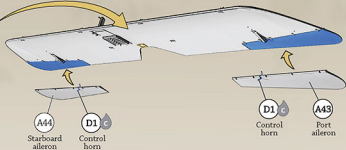
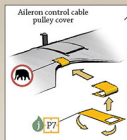
9 TOP WING



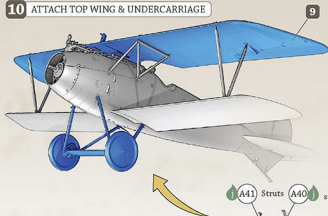
9 TOP WING continued



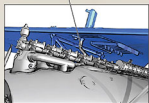
Aileron control horn detail from C.



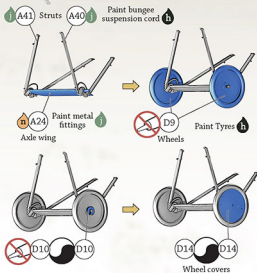
10 ATTACH TOP WING & UNDERCARRIAGE



! Note position of radiator pipe



Undercarriage detail from a Royal Prussian Jasta 41 Albatros D.V. flown by Albert Dietlin. Note the common D.V. style of tyre valve access & wheel cover D14.



11 PROPELLER & FINAL ASSEMBLY

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.

AB **?** **E24** **n** + **e**
Axial



Niendorf **E46** **n** + **e**



Heine
(not shown)
E1 **n** + **e**

CDE **?**

Radiator pipe

F15 **p**

k
P1

C Cowling
straps
(not usually seen on early service D.V.)

Exhaust

A38 **p** + **i**

F4
Spinner

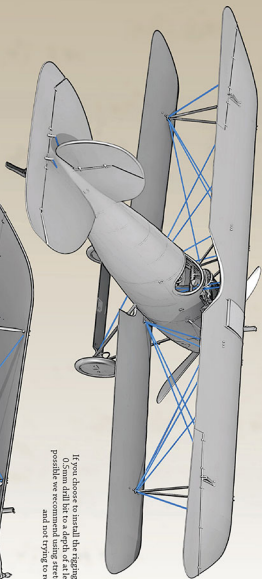


Drill out end of exhaust for a more realistic appearance.



< v Albatros D.V 1192/17 is from the same 1st production order as **AB** and was photographed at Ghent in July 1917. Note the headrest **F1**, Daimler-Mercedes radiator **PR** and gloss finish of the plywood fuselage.

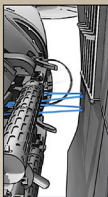
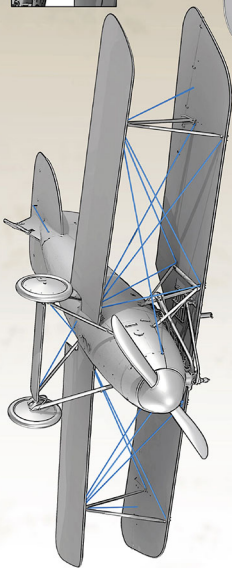




0.5mm



If you choose to install the 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.



Manfred von Richthofen figure



Because figure painters prefer a wide variety of types of paint (enamel, acrylic, oil etc) and many of the colour choices are subjective we will let these larger than life images of the figure painted by John Belcher serve as our painting guide.

Please visit our website for some figure painting hints and tips.



- Dark brown leather helmet, jacket, gauntlets and boots
- Black or dark brown fur lining
- Field grey trousers
- Blonde hair
- White tunic*

*This could possibly have been a white woolen jersey (sweater) and not a tunic as we have sculpted.



Manfred von Richthofen.

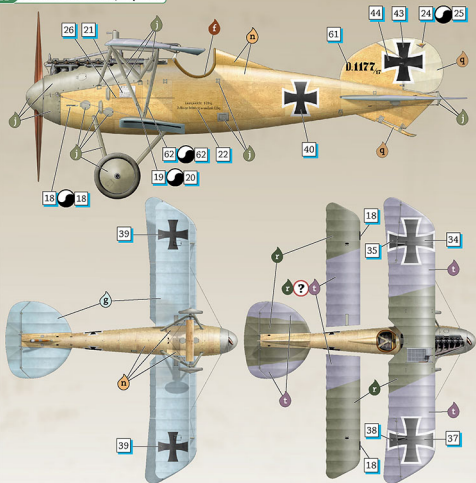


^ Manfred von Richthofen shaking hands with Ernst von Höpner on 23 April 1917.

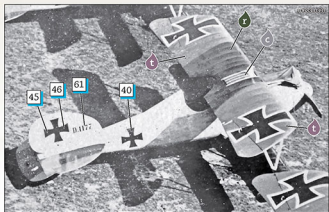
> Manfred von Richthofen photographed on 23 April 1917.

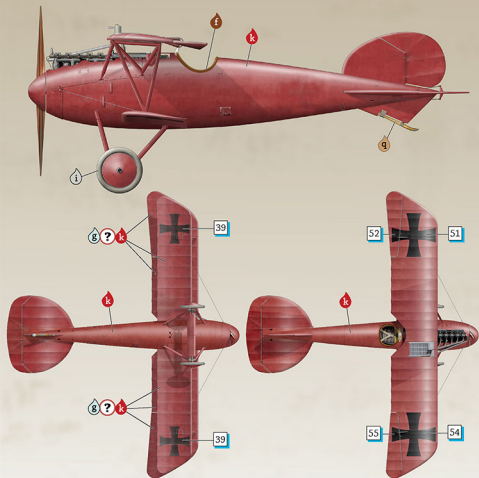


A Albatros D.V 1177/17, May 1917

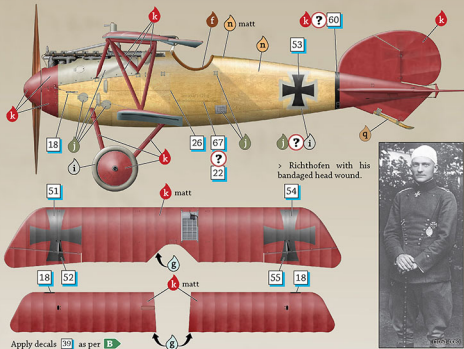


Albatros D.V 1177/17 is from the 1st production order for 200 aircraft placed in April 1917 (numbers 1000/17 to 1199/17) and is shown here in May 1917 while awaiting assignment to Royal Prussian Jasta 11 where it was flown by their Commanding Officer (CO) Manfred von Richthofen. Note the headrest, factory finish varnished plywood fuselage, grey-green cowlings and green and lilac/mauve camouflaged top wings and tailplane. It is possible that the top of the bottom wings are a single colour, possibly **r**.

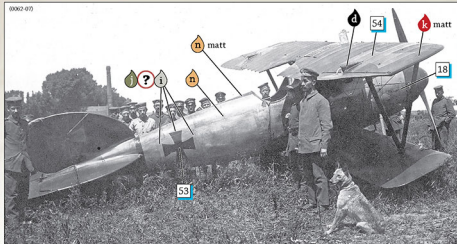




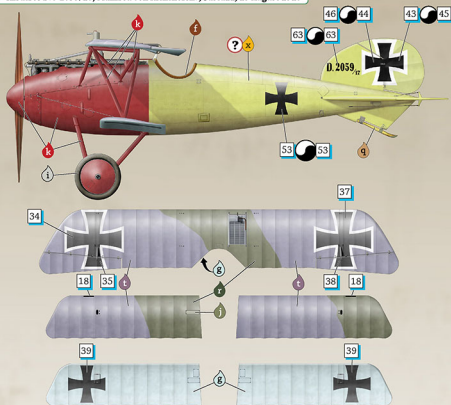
Manfred von Richthofen flew Albatros DV 1177/17 "red body" to claim his 54th, 55th and 56th victories between 23 and 25 June 1917, by which time he was also the CO of Jagdgeschwader 1 (JG 1) comprised of Jastas 4, 6, 10 and 11. Although only identified as "red body" it would appear that pretty much everything other than the radiator and tyres had been overpainted red by the time this photo purportedly showing 1177/17 was taken during Richthofen's visit to Kagohl 3 in very late June or very early July 1917. Note that the white outlines of the wing crossed have clearly been overpainted red. The black areas were almost certainly not overpainted, but if they were it was done with a thinner, less opaque, mix of red than the white outlines which doesn't make any sort of sense. Other Jasta 11 aircraft also had their fuselages completely painted red at this time with only the tailplane or a band around the fuselage finished in the pilot's personal colour.



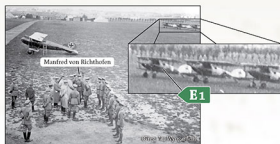
(0002-07)



Manfred von Richthofen was shot down in this unidentified Albatros D.V (previously misidentified as 4693/17) on 6 July 1917. He was shot in the head and severely wounded while attacking an FE.2d of 20 Squadron but managed to make an emergency landing behind the German lines as seen here. Despite his severe head wound, Richthofen was flying again within a matter of weeks. Four days earlier he is believed to have been flying this same Albatros D.V "red hood, tail and wings" when he was credited with his 57th victory on 2 July 1917. The fuselage appears to remain in its factory varnished plywood finish but if so, it is curious as to why the white outline to the cross has been roughly overpainted. The headrest has been removed resulting in a dark triangle behind the cockpit which is most likely just unvarnished plywood not reflecting light as well as the surrounding surface, or perhaps this is the original plywood colour before it, and the fuselage cross outline, were overpainted in an unidentified colour? The wheels, struts, spinner and fuselage "nose cowling" are painted red in the style used by Jasta 11 at this time while the red tailplane and wings were Richthofen's personal markings. Note the dark (black?) band in front of the tailplane and how the gloss black of the wing crosses and aileron control horn fairings contrast with the dull matt red painted over the wings and cross outlines. Other photos of this incident indicate that the fuselage louvre and hatch details remained in their factory applied grey-green finish and the undersides of the wings were most likely light blue.

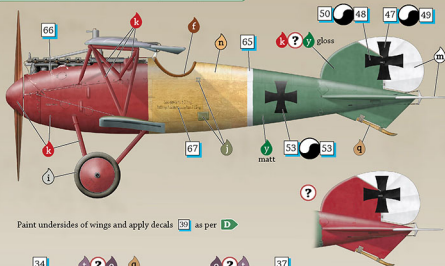


Albatros D.V 2059/17 is from the 2nd production order placed in May 1917 for 400 aircraft (numbers 1962/17 to 2361/17) and was singled out for inclusion in the background when General Erich Ludendorff visited Jasta 11 at Markebeke on 19 August 1917. Because of this, coupled with some prints of photos taken of 2059/17 at this event which appear dark all over, the conventional wisdom has been that this was the aircraft in which Manfred von Richthofen was credited with his 58th & 59th victories on 16 & 26 August 1917 respectively. By this date the red nose from early July had been extended to encompass the entire front half of the fuselage back to the rear undercarriage strut attachment point. Despite historically being illustrated as all over red, the remaining rear of the fuselage and tailplane are finished in a paler colour, although it is plausible that this is also red but applied from a different batch of (matt) paint when (if) it was used by Richthofen. If it isn't red, then it's an unconfirmed colour that is opaque enough to cover the white outline of the fuselage cross and has been carefully painted around the serial number. Pale yellow is illustrated here because it is a great match to the tone of the rear fuselage in period photos but orange, green, purple, dark blue or pink (which was not considered a feminine colour until long after the first world war) are also possibilities. The wings appear to remain in their factory applied camouflage.

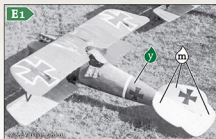
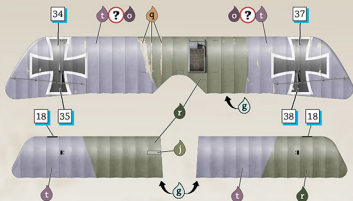


< General Erich Ludendorff's visit to Jasta 11 at Markebeke on 19 August 1917 with Albatros D.V 2059/17 behind and other Jasta 11 Albatros D.V at top right, possibly including **E1**. Manfred von Richthofen can be seen in the centre, with bandage visible beneath his cap.

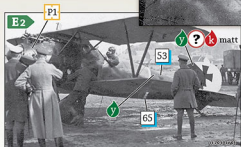
E2 Albatros D.V, Manfred von Richthofen, Jasta 11, late 1917



Paint undersides of wings and apply decals 39 as per D



This photo is believed to show E2 in the markings of Franz Müller sometime after he arrived at Jasta 11 on 19 July 1917 and before he left on 17 October 1917. The white tailplane markings of Müller had been partially overpainted by the time it was used by Manfred von Richthofen to visit Moorssele E2. The outer areas of the weathered top wing appears to have been repainted and might not be in their factory applied lilac.

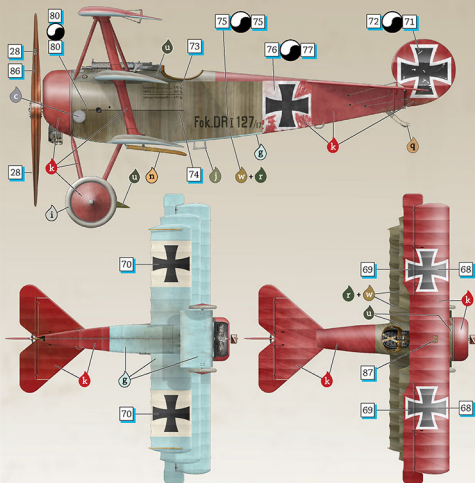


Manfred von Richthofen flew this unidentified Jasta 11 Albatros D.V on a visit to Moorssele airfield in late 1917. This visit was previously reported as happening sometime before Richthofen was shot down and wounded on 6 July 1917 but the entire front half of the fuselage is painted red as per the Jasta 11 practice noted for a later time period, such as 2059/17 D from 19 August 1917. The rear of the fuselage appears to remain as per E1 but the tailplane has been repainted in an unconfirmed dark colour that appears very similar to the green. The rudder and band around the fuselage remain white as per E1. Note the rope from the unseen wheel chock clipped to the port wing drag cable.

Bonus 2 Fokker Dr.1 127/17, Manfred von Richthofen, Jasta 11, 27 March 1918 to 6 April 1918

Recommended model (as at April 2018) is Roden 601 1/32 Fokker Dr.1

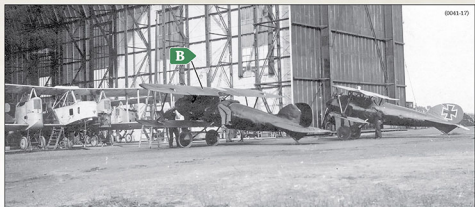
Hint: Improve accuracy by removing the latch detail from the undercarriage axle wing and then fill the panel line. These are details from OAW built Fokker D.VII that somehow found their way onto Fokker Dr.1 scale drawings.



These photos show Fokker Dr.1 127/17 in which Manfred von Richthofen was credited with 3 victories between 27 March 1918 and 6 April 1918. The photo on the left shows 127/17 before it had the top wing, cowling, wheels and tailplane painted red and the square white crossfields reduced to outlines as seen on the right and in the illustrations above. Note the round hatches behind the cowling which was added at Jasta 11 to more easily access the magnetos. Manfred von Richthofen was shot down and killed in Fokker Dr.1 425/17 on 21 April 1918 by Australian machine gunners while he was being pursued by Roy Brown of 208 Squadron RAF in Sopwith F.1 Camel B7270 (see Wingnut Wings model 32070).



A line up of brand new Albatros D.V from the 1st production order including 1166/17, 1177/17 **A** and 1178/18. Note the variations in wing and tailplane camouflage colour placement.



A photo from Manfred von Richthofen's visit to "England Geschwader" Kampfgeschwader 3 (Kagohl 3) sometime after 23 June 1917 and before he was shot down on 6 July 1917. A pair of KG 3 Gotha G.IV can be seen on the left, the D.V believed to be Richthofen's 1177/17 **B** is in the centre and another darkly overpainted D.V is on the right. Note that this is not the same aircraft as 2059/17 **D** and close examination of this print shows that the wings retain their factory finish and the tailplane is finished in a slightly different tone than the red of fuselage, possibly yellow? The partially visible serial number is tentatively identified as 2011/17?



The wheel chocks have been removed and Manfred von Richthofen prepares to take off. The rough demarcation line separating the matt green on the fuselage and the unconfirmed gloss colour on the tailplane indicate that while they appear to have been painted at different times with different batches of paint, they were ostensibly the same unidentified colour, otherwise more care would have been taken. Note the cowl retaining strap **P1** which was a late addition to DV in the field and the 160hp Daimler-Mercedes D.III engine. The aircraft in the background is an unidentified OAW built Albatros D.III.



Product Design by Mark Miller

A background in technical illustration and long term passion for modelling and early aircraft has enabled Mark to produce some of the most stunning 3D renderings of aircraft anyone is likely to see. His artwork has appeared in numerous books and publications from Cross & Cockade, Over the Front, Schiffer and Windsock amongst others.

To see some examples of Mark's work please visit <http://www.wwi-models.org/Images/Miller/render/index.html>

Additional 3D modelling by Bryan Wall



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



Figure Sculpting by Mike Good

Mike Good built his first model at 6 years old and never really stopped. This led to a lifelong career in the model business which began Testors in 1979. Models and dioramas lead him to figure modelling and he quit his job at Testors in 1987 to become a full time figure sculptor. He has sculpted figures for numerous companies including Poste Militaire, Pegaso, Revell/Monogram, Dragon, The Model Cellar and various toy companies. He has received numerous accolades over the years including Best of Shows at MECA and Euro Militaire, Grand Master (MECA - Model Figure Collectors of America), Chicago Medallist (MMSI - Military Miniature Society of Illinois) and was voted a charter Master of the World Model Soldier Federation. His interests over the years have been many and varied including stints in music, painting, poetry, photography, hiking, karaoke and UFOlogy (he was a regular columnist for UFO Magazine US for several years)! You can find many other figures sculpted by Mike at: <http://modelcellar.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.

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 Datasheets, Cross & Cockade and Over the Front.

Visit Ronny's website at: www.ronnybarprofiles.com



32601 Project Manager, Richard Alexander

A native of Wellington New Zealand, Richard Alexander is an award winning scale modeller with many years of experience in the model and hobby industry. Richard has a long term interest in military history, race cars from motor sports golden era of the '60s, malt scotch and fine cigars.

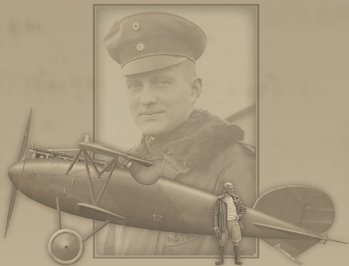
Richard is an accomplished modeller and has been in the model and hobby industry since 1991 and brings with him a keen eye for detail and a passion for ensuring our models are enjoyable to build. So if there is anything you don't like about this model, you can blame him.

If you have any questions about this model, comments, requests or suggestions, Richard is contactable at richard@wingnutwings.com



Figure Painting by John Belcher

John's passion for painting figures started in his early teens with an interest in history, military and otherwise, and he's now been at it for over 40 years. As well as assembling and painting commercially available figures, John sculpts his own figures from scratch. Over the years John has received many awards for his work, these include multiple "best in show" awards at national level in New Zealand and Australia, gold medals nationally and internationally in the USA and in England at the prestigious Euro Militaire.



32601	1/32 Albatros D.V "Manfred von Richthofen"	Qty
0132009A	A parts	1
0132009B	B parts	1
0132009C	C parts	1
0132009D	D parts	2
132E0005	E parts Merc D.III engine	1
0132009F	F parts	1
0132601P	Photo-etched metal parts	1
7132601	Instructions	1
9132601	Decals	1
54601	Figure	1

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



32025 - PR.2b (Late)



32048 - Fokker E.III (Late)



32070 - Sopwith F.1 Camel "Br.1"

Also available from
www.wingnutwings.com

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