

WINGNUT WINGS



Fokker E.II "Max Immelmann"

The legendary Fokker Eindecker, armed with a machine gun synchronized to fire through the propeller, made its 1st official kill on the 1st day of August 1915. It was a 80hp Oberursel U.0 (license built 80hp Gnome) powered wing warping Fokker E.1 flown by Max Immelmann and marked the beginning of the "Fokker scourge". Inspired by the capture on 18 April 1915 of Roland Garros and his Morane-Saulnier Type L Parasol fitted with a forward firing machine gun (using armoured deflector plates to protect the propeller from 'serious' bullet damage) the Germans set about coming up with their own version. Legendarily, the 25 year old Anthony Fokker created his own interrupter gear in just 48 hours after being inspired by the capture of Garros, but this is undoubtedly a myth. A mechanical interrupter gear had been patented in 1913 by Hans Schneider of LVG but it was not until Fokker perfected it, or a similarly inspired design, that it worked sufficiently well enough to be employed in combat. Lawsuits filed by Schneider against Fokker continued up until September 1933.

Fokker's unarmed 80hp and 100hp reconnaissance A type Eindeckers (inspired by a successful pre-war wing warping Morane-Saulnier design but with a welded steel tube frame fuselage) provided the airframes for further development and E.1 (armed Eindecker 80hp) types started shipping to front line units in June 1915. Although initially armed with a Parabellum LMG 14, which proved less than satisfactory, very soon into production they were fitted with the IMG 08 'Spandau'. The 100hp Oberursel U.1 (license built 100hp Gnome Monosoupape) powered E.II was developed concurrently with the E.1 and started entering service in July 1915. The E.III (externally identical to late production E.II) followed in August 1915 and from about October updated E.III started appearing with internal ammunition storage and a wing mounted compass. The 160hp Oberursel U.III powered Fokker E.IV, initially fitted with 3 IMG 08 machine guns (which proved to be 1 gun to many) first appeared in September 1915 but did not arrive at the front in larger numbers until March-April 1916. By this time the appearance of the highly maneuverable French Nieuport 11 and British DH.2 had marked the beginning of the end of the "Fokker scourge", effectively rendering the wing warping German monoplanes obsolete. Most Eindeckers had been withdrawn from front line service by December 1916.

Any history here is of necessity very brief so we recommend that you seek out the references mentioned below for the better understanding of the various Fokker Eindeckers, but we do so with the following caution; considerable confusion exists about these important aircraft (in no small part because of incorrect or conflicting idfieg and Fokker factory records). Because of this we highly recommend you treat published drawings & specifications with a great deal of skepticism. We believe that Josef Scott's Windsock Datafile Fokker Eindecker Compendium 2 published in 2012 is currently the most reliable reference book covering these highly misunderstood aircraft.

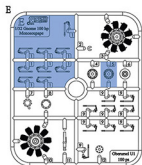
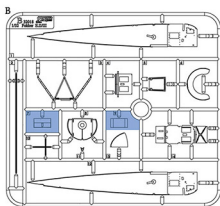
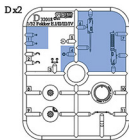
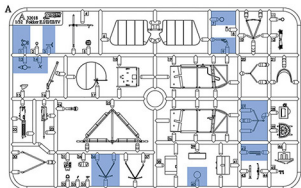
It appears that Fokker Eindecker steel tube framework and fittings were painted in light grey or grey-green while all aluminium panels and cowls remained unpainted and were given a 'squiggly turned' finish. Despite conventional wisdom, photographic evidence shows that no Fokker Eindeckers were factory finished in Clear Doped Linen (CDL) which was translucent. Contemporary allied combat reports record Fokker Eindecker colours such as "dark brown", "dark brown wings on the upper side", "grey", "straw yellow", "white", "black" and "butcher blue". A French report mentions that "the fabric of the Fokker wings was generally beige in 1916" while capture reports of later production E.III 196/16 and E.III 210/16 simply mention "beige". It is likely that "beige" and "straw yellow" are actually the same colour and "white" and "black" refer to misidentified Pfalz Eindeckers. It would appear that the linen covering was dyed, possibly before being fitted to the aircraft, or colour doped after being attached but before being finished with clear shrinking dope and varnish. Most Fokker Eindeckers exhibit heavy castor oil staining along their fuselages which soaked through the fabric from the inside, considerably darkening the coloured fabric.

Richard Alexander 2018

Wingspan:	Length:	Max Weight:	Max Speed:
10.05m (32.97ft)	7.25m (23.78ft)	604kg (1330lb)	150kph (94mph)
Ceiling:	Production:	Armament:	
Unconfirmed	June 1915 - October 1915	7.92mm (0.311in) IMG 08 'Spandau' machine gun	
No. Manufactured:	Engine:		
60 approx (including early E.III)	100hp Oberursel U.1		

References:

Fokker E.III Windsock Datafile 15, PM Grosz, 1989 - Fokker E.1/II Windsock Datafile 91, PM Grosz, 2002
Windsock Datafile Fokker Eindecker Compendium 2, Josef Scott 2012 - Avions Allemands Zeppelin et Moteurs, Jean Lagorgette 1917
(www.association14-18.org) - Early German Aces of World War 1, Osprey, Greg VanWyngarden, 2006 - The Blue Max Airmen Volume 1,
Lance Bronnenkant 2012 - Fokker Eindecker in Action, Squadron Signal, D.Edgar Brannon, 1996 - The Vintage Aviator Ltd
1914-18 Aviation Heritage - Private Collections



Decals

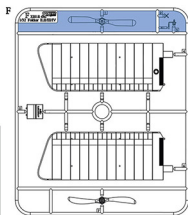
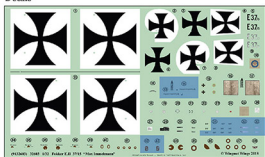
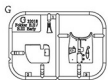
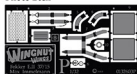


Photo Etch

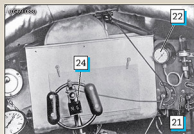
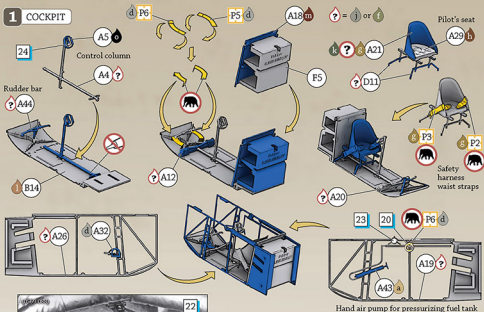


Figure



 = Not Used

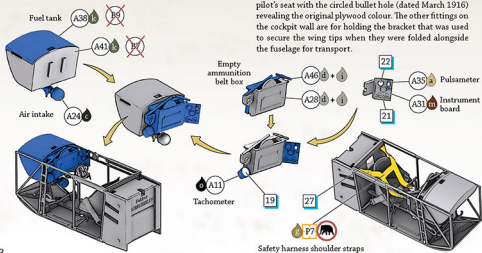
1 COCKPIT



It is believed that this photo was taken to document how a tangled IMG 08 'Spandau' trigger cable caused Ernst Udet to crash on take off during his 1st Fokker E.II or E.III flight on 26 November 1915 at Habsheim. Note the empty belt container (A28), tachometer (A11) and small instrument board (A31) with pulsometer (A35).

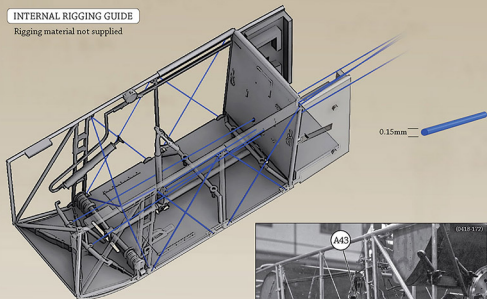


Many interesting details are visible on Wilhelm Frank's Fokker E.II seen here undergoing repair or servicing. Note the dark stained/painted plywood board (A18) behind the pilot's seat with the circled bullet hole (dated March 1916) revealing the original plywood colour. The other fittings on the cockpit wall are for holding the bracket that was used to secure the wing tips when they were folded alongside the fuselage for transport.

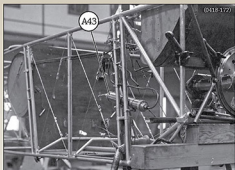


INTERNAL RIGGING GUIDE

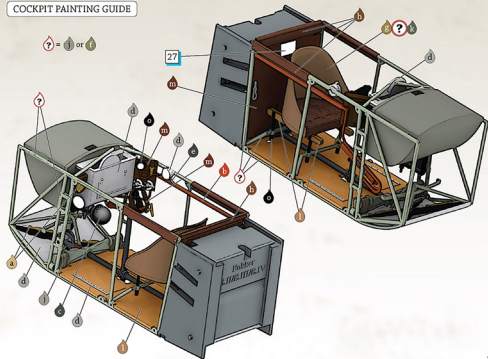
Rigging material not supplied



> Cockpit frame detail from Navy Fokker E.III S.73 undergoing extensive repairs. Note the internal bracing cable details, specially by the way the bracing cables cross low down behind the rudder bar to allow more room for the pilot's feet. Also note the hand air pump (A4), seat mounts (D1), darkly stained/painted rear of the cockpit (A18) and the rectangular hatch openings in the floor for downward visibility.



COCKPIT PAINTING GUIDE

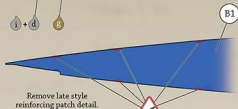


2 FUSELAGE

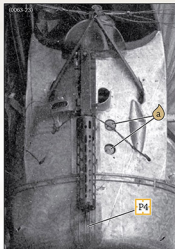
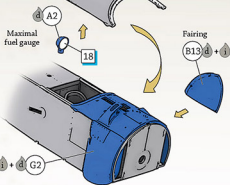
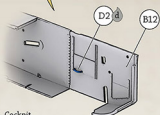
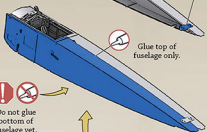
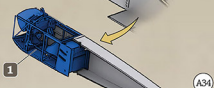
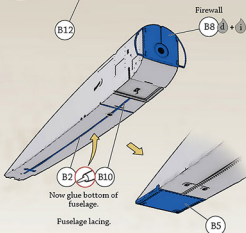
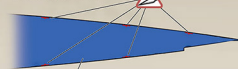
B1 Paint insides of B12 as per B1



i + d g

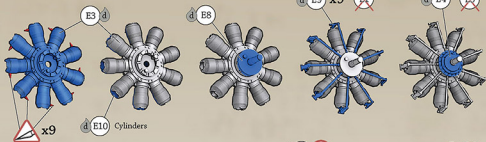


Remove late style reinforcing patch detail.

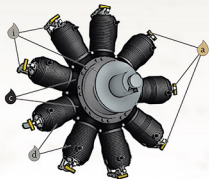
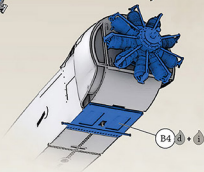
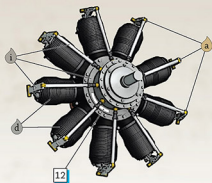
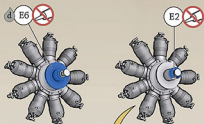
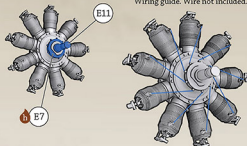


< Cockpit coaming detail from an unidentifiable Fokker E.II crashed by Otto Parschau at Rethel. Note the inline fuel/oil filler caps, fairing for the fuel gauge, ammunition feed chute (G1), the flash guard (P4) under the muzzle and later style of IMG 08 'Spandau' cooling jacket unlike that of 37/15. Please visit www.wingnutwings.com "hints & tips" for advice on painting the "turned" cowling effect.

3 100hp OBERURSEL U.1 ENGINE



Wiring guide. Wire not included.



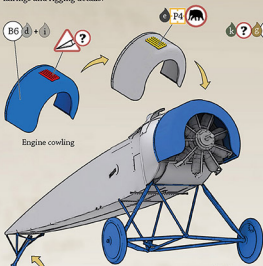
Max Immelmann points out salient details of Fokker E.II 37/15 to visiting dignitaries on 15 November 1915.

4 UNDERCARRIAGE

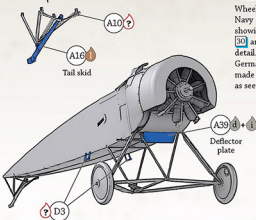
? = j or i



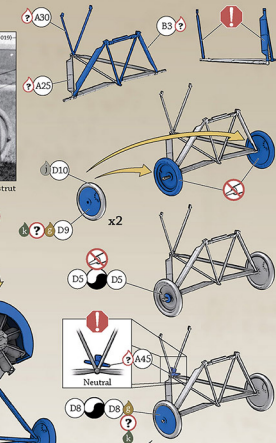
Undercarriage detail from Fokker E.II 36/15 showing strut fairings and rigging details.



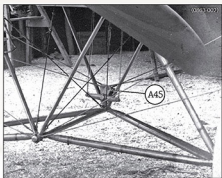
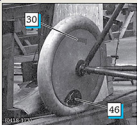
Engine cowling



Tail skid



Wheel and tyre detail from Navy Fokker E.III 5.73 showing the "Innen" stencil 30 and inner tube access flap detail. Many, but not all, German WW1 tyres were made from light grey rubber as seen here.



> Undercarriage detail and wing warping cable rigging from a Fokker E.IV thought to be 638/15. Although this is a Fokker E.IV the details shown here are pertinent for the Fokker E.II.

5 WINGS AND TAILPLANE

Cut for fairing clearance



Remove compass detail






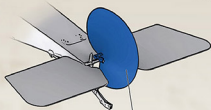
F4

F6

Elevators

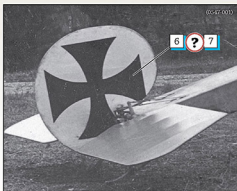
A6

Paint control horns and metal tubes   

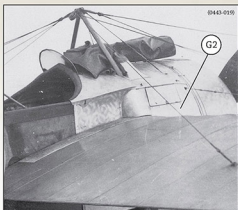


Rudder

A17



6 ? 7



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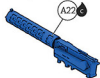
G2

Rudder and elevator detail from Fokker E.II 36/15. Note the control horns and patches around the cable exits on top of the fuselage.

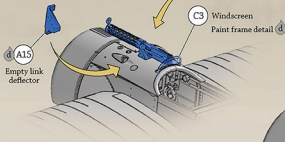
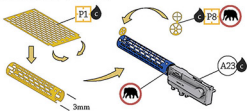
Wing root, cockpit coaming and magazine fairing from Fokker E.II 36/15. Almost no two early Fokker Eindeckers are assembled exactly the same way so while we have done our best to capture the "usual" style of overlapping cowl panels etc they will not always be 100% accurate. Note how the cockpit padding is raised in the middle where the 2 sides of the cockpit coaming meet and have not been "rounded". A waterproof cover protects the IMG 08 'Spandau' from the elements.

6 COCKPIT COAMING DETAIL

IMG 08 'Spandau'



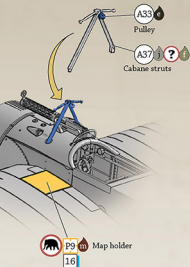
IMG 08 'Spandau' - High detail



^ Cabane strut, turnbuckle and wing warping control cable pulley (A33) detail from a Fokker E.IV prototype (believed to be 122/15). Although the dark coloured cabane struts are not typical, the pulley and wing warping cable details are the same as for the E.II.



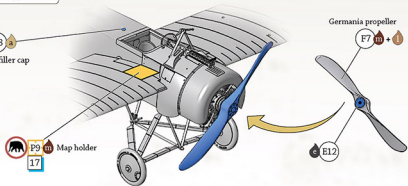
< IMG 08 "Spandau" detail from Immelman's Fokker E.II 37/15 seen on page 6. Note the ring sight (P8) favoured by Immelman.



IMG 08 "Spandau" detail from Fokker E.II 37/15.

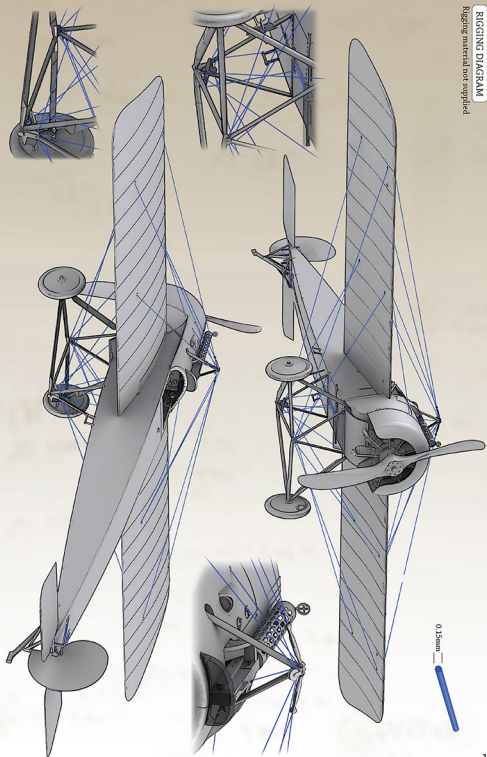
7 FINAL ASSEMBLY

! A8 Fuel tank filler cap

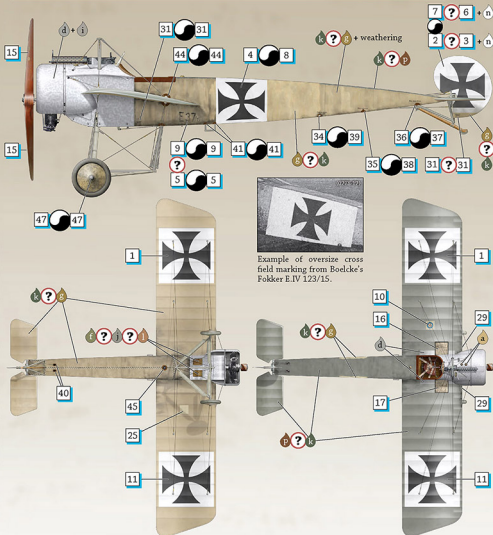


RIGGING DIAGRAM

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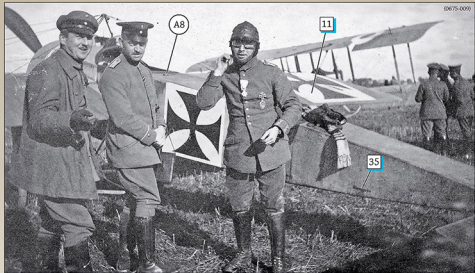


Fokker E.II 37/15, Max Immellmann, Feldflieger Abteilung 62, October to November 1915 (15 victories)



Fokker E.II 37/17 was allocated to FFA 62 in early September 1915 where it was flown by Oswald Boelcke until a crash landing due to engine failure a couple of weeks later required repairs that took until early October 1915. By this time Boelcke had been transferred to Brieftauben-Abteilung Metz (BAM) and Fokker E.II 37/15 was inherited by Max Immellmann who flew it until December 1915. Born in September 1890, Max Immellmann was only 14 when he attended the Dresden Cadet School and by 1912 he was an Ensign in a Railway Regiment but left to study mechanical engineering. Following the outbreak of war he again served in a Railway Regiment but quickly transferred to aviation and by the end of 1914 was learning to fly. In March 1915 he was flying two-seaters with FFA 62 and by July he was allocated Fokker E.I 13/15 (see Wingnut Wings model 32021). Max was flying 13/15 when he was credited with his 1st victory on 1 August 1915. On the evening of 18 June 1916 Max Immellmann was flying Fokker E.III 246/16 (see Wingnut Wings model 32048) when he reportedly shot off his own propeller while in combat with 7 FE.2b of 25 Sqn, the resulting violent vibrations caused his aircraft to shake itself apart and Max plummeted to his death 2000 meters below. It is widely recounted that Immellmann shot down FE.2b 4909 (see Wingnut Wings model 32014) and 6940 on this day but these were not officially recognized (the former was awarded to Max Mulzer) so his total victory count remained 15. Immellmann was 26 years old. For further reading on both Max Immellmann and Oswald Boelcke we highly recommend *The Blue Max Airmen Volume 1* by Lance J Bronnenkant, Aeronaut Books 2012.

Although we supply numerous factory applied stencils, many of these have been overpainted by the dark upper camouflage colour and are not required [13](#), [14](#), [32](#), [33](#), [42](#) & [43](#).



Max Immelmann in front of Fokker E.II 37/15 on 26 October 1915 with his 5th credited victory. Vickers FB.5 5464 crewed by Charles Curtis Darley and Reginald James Slade of 11 Squadron RFC, in the background. Darley was wounded in the arm and their aircraft received around 40 bullet holes. Note the heavily stained and weathered fuselage of Fokker E.II 37/17.



Max Immelmann perched on the fuselage of Fokker E.II 37/15 on 26 October 1915. Note the cleaned area of fabric behind Immelmann's unique fuselage cross, most likely the result of removing a previously applied marking, probably Boelcke's oversized rectangular white cross field (see opposite). The darker (brown or grey) upper fuselage colour has been partially removed in this area as well. The large bullet hole patch **10** is dated 10 October 1915.



Fokker E.II 37/15 photographed during a display for Friedrich August III, the King of Saxony on 15 November 1915. The remains of Immelmann's 4th credited victory from 10 October 1915, 16 Squadron BE.2c 2033 "The Dung Heap" (or more likely "The Shit Heap") so named for its unconventional camouflage scheme, are on display in the foreground.

Max Immelmann 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.



Immelmann with Fokker E.II 37/15 on 26 October 1915.

- Dark brown or black leather jacket
- Brown fur lining
- Dark brown leather helmet, gauntlets & boots
- Field grey tunic & trousers



Immelmann.



Immelmann with Fokker E.II 37/15 in October 1915.



^ Immelmann clowning around in early 1916.

> A relaxed Immelmann photographed sometime after he was awarded the Pour Le Merite "The Blue Max" on 12 January 1916.





Max Immelmann stands smiling in front of Fokker E.II 37/15. Fokker Eindecker propellers were usually painted very dark brown but this one retains a laminated finish.



Product design by Jason McAdam

From a very early age Jason has embraced his creative side, whether it be through drawing or modelling. This creative nature was strongly grafted with a passion for transportation design, whether it be by land, air or sea.

Having graduated with an honours degree in Industrial Design Jason has gone on to develop his skills further in his design work with Weta Digital & Wingnut Wings. Jason has continued to push the boundaries of software technologies and applications, with a keen eye for detail. This passion for design comes hand in hand with a love of sport and recreation, with motorbike riding being among the more popular of past times.



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 MFCA and Euro Militaire, Grand Master (MFCA - 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: <https://modelcellar.com>



Profile Art by Ronny Bar

Ronny Bar developed a keen interest in airplanes from an early age, living close to 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 Datafiles, 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.



32603	1/32 Fokker E.II "Max Immelmann"	Qty
0132018A	A parts Fokker E.1/II/III/IV	1
0132018B	B parts Fokker E.II/III	1
0132018C	C parts Fokker E.1/II/III/IV	1
0132018D	D parts Fokker E.1/II/III/IV	2
0132018F	F parts Fokker E.II/III/IV	1
0132018G	G parts Fokker E.II/III Early	1
132E0018	100hp Oberursel engine	1
0132603P	Photo-etched metal parts	1
7132603	Instructions	1
9132603	Decals	1
54603	Max Immelmann figure a b c d	1

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



32021 - Fokker E.1 (Early)



32025 - FB.2b Late



32029 - Fokker E.IV

Also available from
www.wingnutwings.com

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