

WINGNUT WINGS



The RAF FE.2b (The Royal Aircraft Factory Farman Experimental 2b) was a mild update to the FE.2a 'Gun Carrier' which first flew in January 1915. Like other Royal Aircraft Factory designs of the time the FE.2a made good use of many 'off the shelf' components from their other designs, most notably the use of the BE.2c upper wing panels and experimental BE.2 oleo undercarriage with a nose wheel. The first FE.2a differed from the FE.2b in that it was initially powered by a fully cowled 100hp Green engine, featured an airbrake/flap in the top center section, RAF 6 aerofoil section wings and had more ply on the sides of the nacelle. Later FE.2a used a 120hp Austro-Daimler engine (built by Beardmore), dispensed with the airbrake/flap and much of the engine cowling and added a long teardrop shaped gravity petrol tank hung below the top wing. Only 12 FE.2a were built before production was switched to the FE.2b which, apart from streamlining the gravity tank and doing away with even more of the engine cowling, was for all intents and purposes the same. Early in production the wing airfoil section was changed to RAF 14 section and these new wings were retrofitted to older machines. Eventually the meaning of the F in the initials would change from 'Farman', named after the pusher designs of Henry Farman, to 'Fighting'... and fight it did!

Despite its ungainly appearance and large size the FE.2b 'Tee' was an effective two seat fighter, reconnaissance and bomber aircraft which proved to be highly adaptable to the changing face of aerial warfare. Arriving in late 1915 the pusher design afforded the observer/gunner an excellent view and field of fire (something that its contemporaries the BE.2c & e were sorely lacking) enabling the FE.2b, along with the DHL2, to combat the 'Fokker scourge' then decimating the RFC. It also saw service in the escort, reconnaissance, home defense, training and bombing roles and it was in the latter role as a specialized night bomber that it soldiered on until the Armistice. The FE.2b was initially powered by the reliable 120hp Austro Daimler engine built by Beardmore which was later upgraded to deliver 160hp although this proved to be very unreliable at first. The FE.2d, an improved version powered by 250hp & 275hp Rolls Royce Eagle engines, started appearing in June 1916 but only saw limited service and production was halted due to those engines being urgently required elsewhere. Remaining FE.2d airframes then under construction were completed as FE.2bs. A more streamlined 'V' strut undercarriage was tested on an FE.2a and early FE.2b but the shock absorbing oleo undercarriage was preferred, although a modification designed by Lt Yffraford Jones of 20 Sqn was introduced from June 1916. Later the 'V' strut undercarriage was reintroduced as it enabled the fitting of a 230lb bomb under the nacelle. Any history of this fascinating aircraft here is of necessity very brief so we encourage you to seek out any, or all, of the reference books listed below.

Arriving early in the war at a time when camouflage was only just being introduced early FE.2bs feature many interesting colour scheme possibilities. The desire to camouflage aircraft from observation from above lead to 'emergency' applications of varnish tinted with liquid or ground pigments which were quite transparent, although slightly less so for the ground pigment versions, and ranged in colour from approximately FS14097 to 24098 for green and FS30118 to 20122 for the brown (Ian Huntley writing in Scale Models). While offering some protection from prying eyes these dyed varnishes offered no protection from the sun's harmful rays and a line of opaque Protective Covering (PC) dopes were developed, the most infamous of which, PC10, was slowly introduced from April-May 1916. Prior to the introduction of PC10 it appears that 'experimental khaki' PCB saw limited use and was, reportedly, a light brown similar to FS10266. Early production FE.2b were delivered with CDL fabric surfaces, light grey ply nacelle areas and unpainted aluminium cowlings. Following the introduction of camouflage varnishes and protective covering dopes the nacelles and upper surfaces of the wings and tailplanes were finished with these. The various camouflage colours initially applied at Squadron level and the frequency that wing panels were replaced resulted in a lot of individuality amongst early FE.2bs. Later production aircraft arrived finished with PC10 nacelles and upper surfaces but again replacement wing panels provide a level of individuality. Metal brackets and fittings were usually black. Richard Alexander 2011

Wingspan:	Length:	Max Weight:	Max Speed:
47' 9" (14.55m)	31' 9" to 32' 3" (9.68m - 9.75m)	Approximately 3300lb (1500kg)	91.5mph (147kph)
No. manufactured:	Production:	Engine:	Ceiling:
1800 (approx) incl. rebuilds	Sept(?) 1915 to Nov(?) 1918	120hp & 160hp Beardmore	11,000' (3350m)

Armament:

1 or 2 .303 (7.7mm) Lewis guns and over 350lb (160kg) of bombs.

References:

Schedule of Spare Parts for the F.E.2.B Machine, DCGE T.5 R.7392 1050 10/18, 1918 - The Vintage Aviator Ltd
 1914-18 Aviation Heritage Trust - RAF FE2b Windsock Datafile, JM Bruce, 1989 - The Royal Aircraft Factory FE2b/d
 & Variants in RFC, RAF, RNAS & AFC Service, various authors, Cross & Cockade International, 2009
 The FE2B Flies Again, various authors, Albatros Publications, 2009 - Private Collections

FE.2b Early

1/32 Scale

- Warning:** Choking hazard. Keep small parts and plastic bags away from children. Use glue and paint in a well ventilated area. Always wear protective eyewear when cutting and a protective mask when painting, gluing and sanding. Do not breathe dust from polyurethane resin parts (if included). Beware of sharp edges on metal parts.
- Assembly:** Read all the instructions carefully before starting assembly. Use glue intended for plastic models. Assemble metal and resin parts (if included) using Cyanoacrylate (CA) or epoxy glue. Before assembly select a marking option and note optional parts required in instructions.
- Rigging:** If installing rigging please drill out all location holes with a 0.5mm drill bit to a depth of at least 1mm.
- Painting:** Only use paints suitable for plastic model kits.
- Decals:** Cut out each decal as required. Soak in warm water for 15 seconds. Slide off backing paper onto gloss painted surface of model. For large decals it is helpful to apply a drop of water to the area they are being applied to. This will make it easier to maneuver them into the correct position.

Hints & Tips: Please visit our website for additional 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

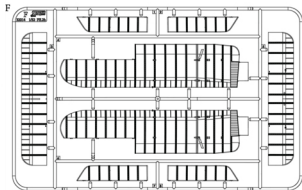
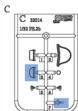
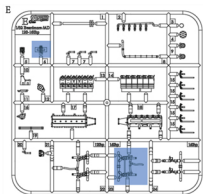
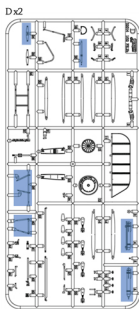
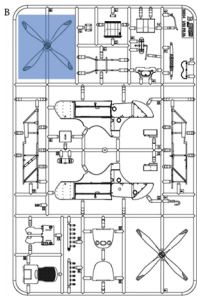
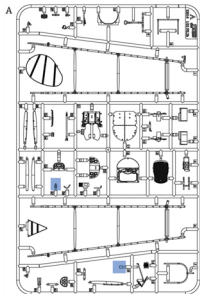


Paint Colour

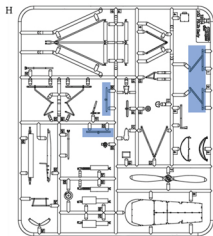
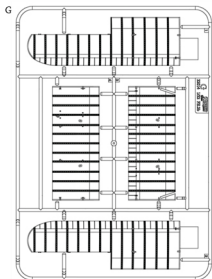
P1 Photo Etch Part

All colours	Tamiya	Humbrol	Misterkit
a Brass	X31	54	
b Copper	XF6	12	
c Gun Metal	X10	27004	
d Aluminium	XF16	27001	
e Steel	XF56	27003	
f Dark Yellow - matt	XF60	74	
g Rust	XF9	113	
h Leather - semi gloss	XF52	62	
i Clear Doped Linen (CDL) - semi gloss	XF55	121	BC05
j PC8 (FS10266) - matt	XF72(x3) + XF3(x2)	-	
k Dark Khaki - matt	XF51	108	
l PC10 early - matt & semi gloss	XF62	155	BC03
m Light Grey	XF19	64	
n White	XF2	34	BC08
o Dark Wood* - semi gloss	XF68	98	
p Black - semi gloss	X18	85	
q Rubber - matt	XF69	66	
r Light Wood* - semi gloss	XF78	93	
s Red - matt	XF7	60	
t Tinted Varnish Green (over )	XF58(x1) + X22(x2)	29(x1)+35(x2)	
u Tinted Varnish Brown (over )	XF52(x1) + X22(x2)	123(x1)+35(x2)	
v Clear red	X27	1321	
w Clear green	X25	1325	
x Green	X28	208	

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



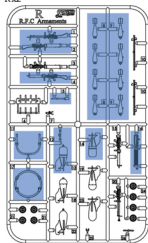
 = Not Used



Decal Sheet



Rx2



Decal Sheet

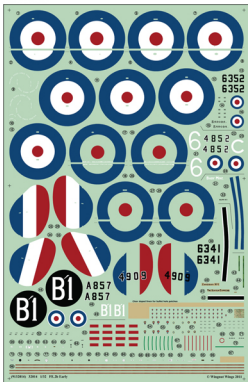
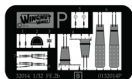
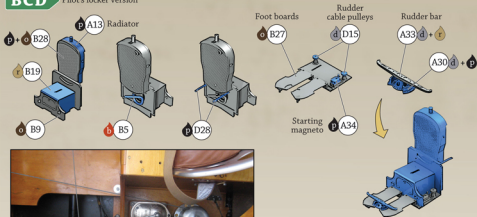


Photo Etch



1 NACELLE INTERIOR

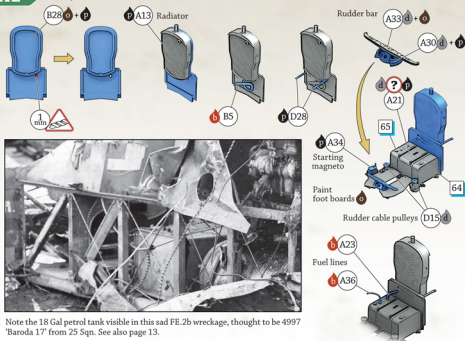
BCD Pilot's locker version



Cockpit detail from The Vintage Aviator LTD's beautiful reproduction FE.2b 6341. Note the location of the magneto winder and rudder control cable pulleys in the 'pilot's locker' layout. All following colour FE.2b photos are of this remarkable aircraft.

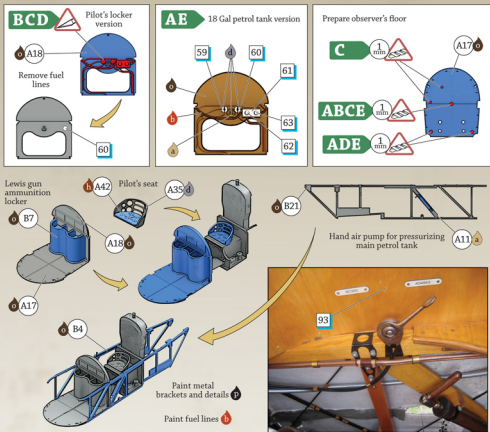


AE 18 Gal petrol tank



Note the 18 Gal petrol tank visible in this sad FE.2b wreckage, thought to be 4997 'Baroda 17' from 25 Sqn. See also page 13.

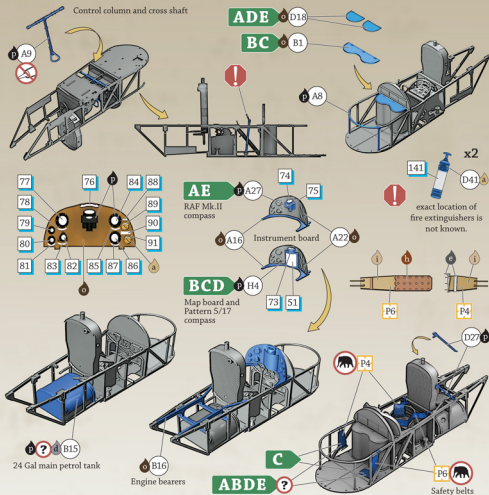
2 NACELLE INTERIOR continued



Nacelle detail showing that the observer of FE.2b 6341 did have a safety belt [M] & [C] when previously it was thought that only the pilot was lucky enough to be restrained. Obviously the relative safety of this belt would need to be vacated for the observer to effectively perform his duties and it is quite possible that many other observers were not so lucky. The inside of the laminated mahogany veneer nose has been lined in clear doped linen for additional strength



while the upper nacelle ply panels retain their varnished plywood interiors. Note the footstep [P2] unique to 6341 in the side of the nacelle. This and all other archive photos of 6341 were taken by the Germans following its capture on 16 May 1916.



^ Seat and control column detail showing location of decal 94. Note that the 4 point Sutton Harness shown here is one of the very few 'modern' items installed for safety reasons. The usual safety belt was like we include in this model P4 & P6.

v Instrument board detail. The 4 metal brackets either side of the compass are to secure a curved map holder (H4 & 51) which was seen on early machines.



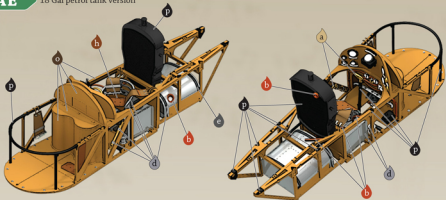


Interior detail photos from 6341. While some details of the 'Pilot's Locker' cockpit arrangement might not be suitable for the colour scheme you are modelling these photos reveal many very interesting details.

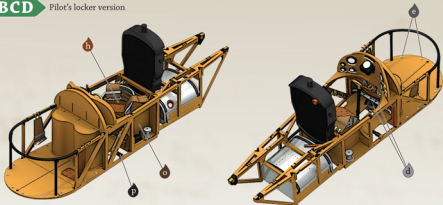


RAF built FE.2b 5226 'Punjab No.5 Nabha' was completed in early 1916 and would have initially appeared very similar to 5203 seen on page 38. It now has its nacelle finished in PC10 (although the wings remain CDL), has Trafford Jones undercarriage, No.10 Mk.1 Anderson rear and No.4 Mk.1 Swivelling front mounts for its twin Lewis guns.

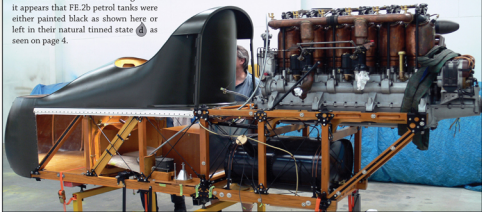
AE 18 Gal petrol tank version



BCD Pilot's locker version

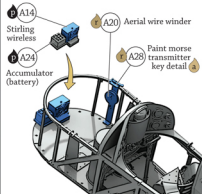


Nacelle detail from 6341. During WW1 it appears that FE.2b petrol tanks were either painted black as shown here or left in their natural tinned state (d) as seen on page 4.

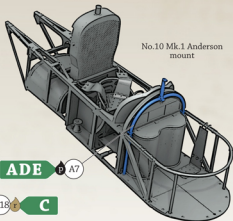
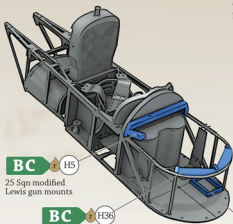


3 NACELLE PULPIT OPTIONS

? Optional Stirling wireless set possibly installed in **E**

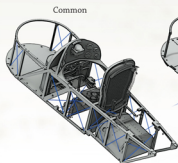


Further nacelle detail from 6341 showing the doped on linen nose section lining. Brackets for the folding windscreen and a makeshift mount for a morse transmitter key can be seen, neither of which appear to have been fitted for the final flight of FE.2b 6341. The clips attached to the boards in the nose are used to position the front Lewis mount. It is thought that the damaged fitting on the left of the floor (118) was to hold photographic plates while the tubular arm (127) on the right was possibly a makeshift method of remotely changing the plates in flight... or yet another Lewis gun mount. Interestingly the exposed metal and wood framework both appear to have been painted a very dark grey (9) colour.

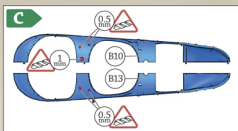
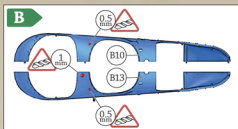
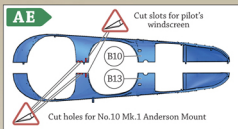


RIGGING GUIDE

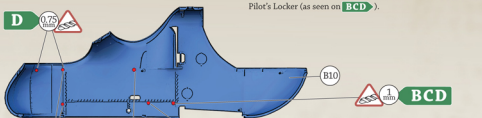
Rigging material not included



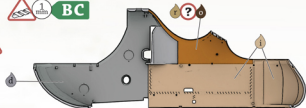
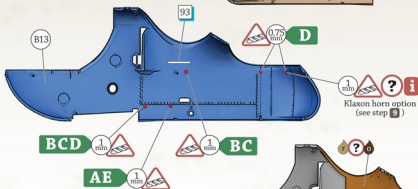
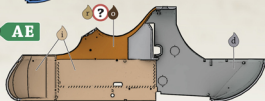
4 NACELLE PREPARATION



RAF built FE.2b 6351 'Baroda 14' was completed in January 1916 and features the earliest form of Lewis Gun mount, the No.2 Mk.1 'balcony' mount (as seen on **D**). Also visible is the rudder control cable exit location for aircraft fitted with the Pilot's Locker (as seen on **BCD**).



vi
camera mount option
(see step 16)



5 NACELLE continued

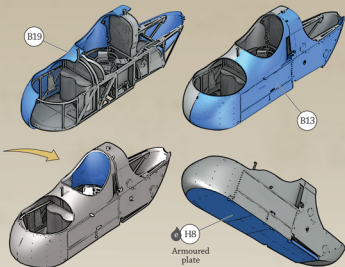
ABCD

120hp engine version



E

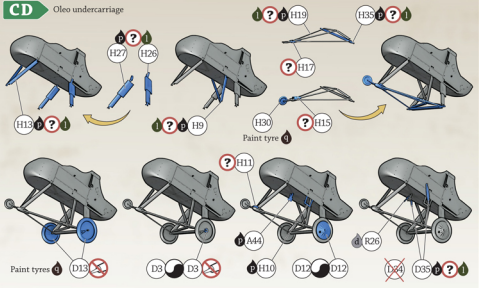
Additional cooling vents for 160hp engine version



6 UNDERCARRIAGE

CD

Oleo undercarriage



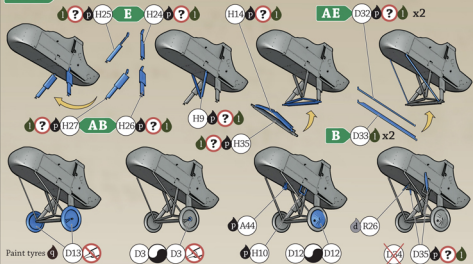
'Tricycle' oleo undercarriage with nose wheel detail from 6351 'Baroda 14'. The teardrop shaped fairing (H19 & H17) behind the front wheel is not currently fitted, note the area worn bare on the oleo undercarriage strut.



Oleo undercarriage detail from 6341 showing foot step (H8) and wind driven petrol pump (A44).

ABE

Trafford Jones modified oleo undercarriage



< Detail of 'Trafford Jones' undercarriage from 6934 'Punjab 26 Jullundur' with faired front struts (D33) and oleos (H24).



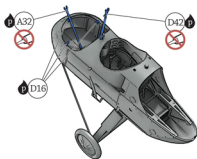
> Detail of 'Trafford Jones' undercarriage from A5666 with unfaired struts (D33) & oleos (H24).



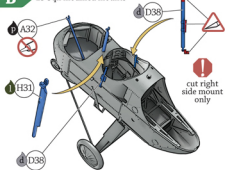
G & J Weir built FE.2b A5666 appears to have spent its life at an Army Acceptance Park 7 until being written off following an engine failure during take off in March 1919(!) injuring both crew.

7 NACELLE GUN MOUNT OPTIONS

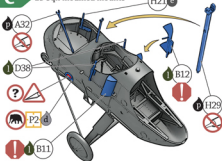
A E No.4 Mk.1 Swivelling mount and No.10 Mk.1 Anderson rear mount with sliding telescopic tube.



B 25 Sqn modified mounts

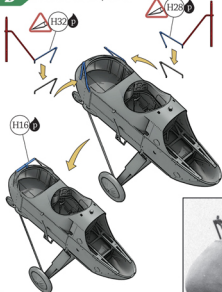


C 25 Sqn modified mounts



Note radiator shutters (B11) & (B12) are unique to C

D No.2 Mk.1 'balcony mount'



Improvised armament. A German soldier demonstrates how they thought the observer would use the rear Lewis gun on FE.2b 6341 'Zanzibar No.1 - The Scotch Express'. Note the additional rigging for the makeshift mount and the smaller Lewis mounts on either side of the Pilot's cockpit.



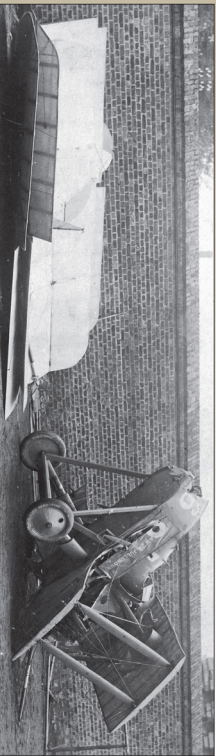
Standardized armament. Although severely damaged after crashing into a street this FE.2b, thought to be 4997 'Baroda 17', displays the No.10 Mk.1 Anderson rear mount (A7) + (A42) and front No.4 Mk.1 Swivelling mount (A32) with its 3 clips (D16) located on the top fairing support tube (A8). The 25 Sqn FE.2b 4997 of AH Bates and WA Barnes was on a bombing mission then they were shot down and killed by Manfred von Richthofen on 13 April 1917. Interestingly the instrument board appears to have been painted a 'dark' colour (4) ?



The earliest armament for the FE.2b was a single Lewis gun mounted on a No.2 Mk.1 'balcony mount' (H19), (H28) & (H32) as seen here in this detail from FE.2b 6351 'Baroda 14'. The observer's fabric windscreen (H6) has been extended.

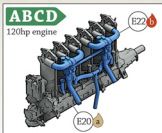
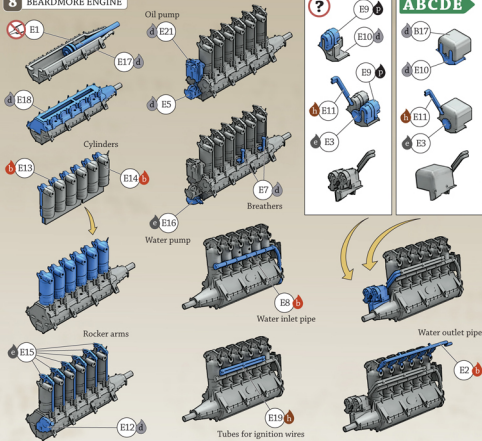


Another view of FE 2b 6341 after recovery by the Germans. All 4 ailerons are raised because their control cables have been disconnected and the bungee cord returns are pulling them up. Note how the black '41' of the rudder serial number appears lighter than the red stripe. This is because the matt black paint is reflecting light differently from the gloss red.

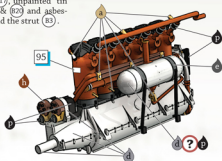
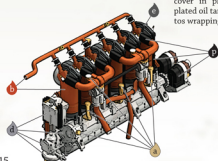
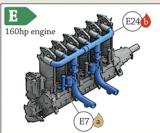


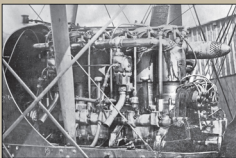
The Boulton & Paul built FE 2b 6934 'Punjab 26 Julander' of 23 Sqn was lost in action on 3 September 1916 and its crew of 2Lt Sams and Cpl W Summers were made POW. While the nacelle appears to have a coat of PClO all flying surfaces remain CDL.

8 BEARDMORE ENGINE

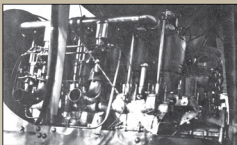


Another view of 120hp Beardmore engine #391 from the original 6341. This photo was taken immediately after capture and shows the magneto cover in place (E17), unpainted tin plated oil tank (E8 & E23) and asbestos wrapping around the strut (E3).





120hp Beardmore engine #391 from the original 6341 shortly after capture. Note the separate intake manifolds (E22) indicative of a 120hp engine and that the magneto cover (B17) has been removed by the Germans for this photograph.



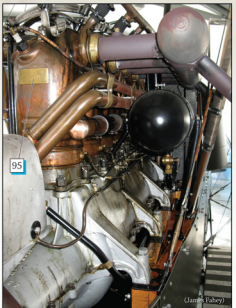
160hp Beardmore engine showing joined intake manifolds (E24).



An original 160hp Beardmore engine is readied for The Vintage Aviator's FE.2b 6341 reproduction. Note the oil pump (E21) at left.



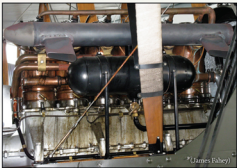
The same engine after a few hours flying time in FE.2b 6341. Note the extensive oil staining and patina of the copper water jackets and intake pipes (E24) and how necessary the protective magneto cover (B17) was.



^ > Rear right view showing the position of the oil tank (B8) & (B20) under the late style silencer (B29) & (B31).



Top view showing the rocker arms, water outlet pipe and cylinder water jackets before being mounted into FE.2b 6341.

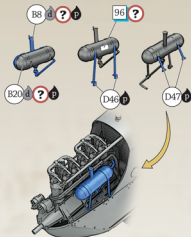


9 NACELLE DETAILS

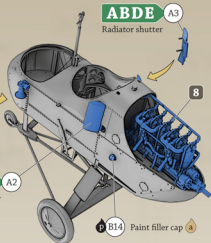


Klaxon horn used to communicate with infantry during offensives fixed to 18 Sqn FE.2b 6346 during October 1916.

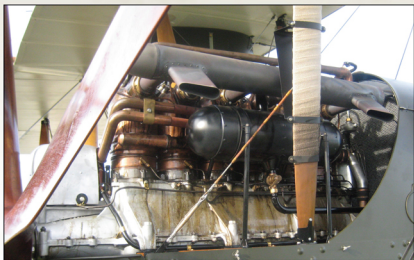
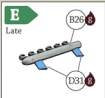
3 Gal oil tank



ABDE A2
Radiator shutter

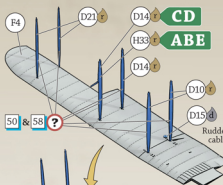
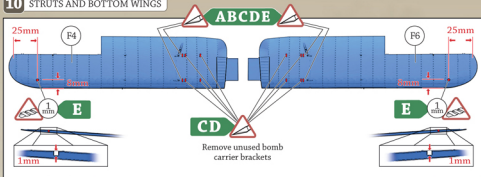


Exhaust manifold/silencer

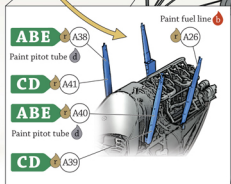
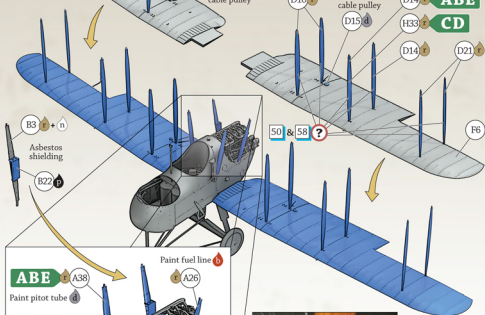
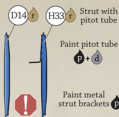


Silencer and 3 Gal oil tank detail from 6341. Archive images indicate that the tin plated oil tank was often unpainted. Note the asbestos heat shielding wrapped around the rear strut (B3).

10 STRUTS AND BOTTOM WINGS



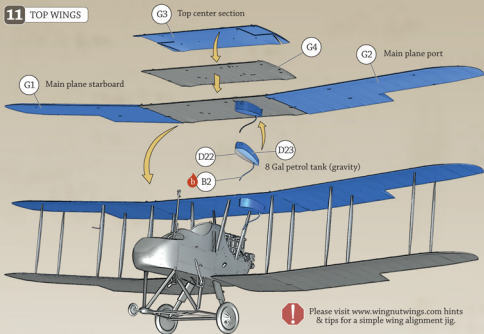
Non slip aluminium plate and plywood wing walk detail from 6341.



Port rudder control cable pulley (D15) from TVAL 6341.

(James Foley)

11 TOP WINGS



8 gal petrol tank detail from 6341 painted PC10.

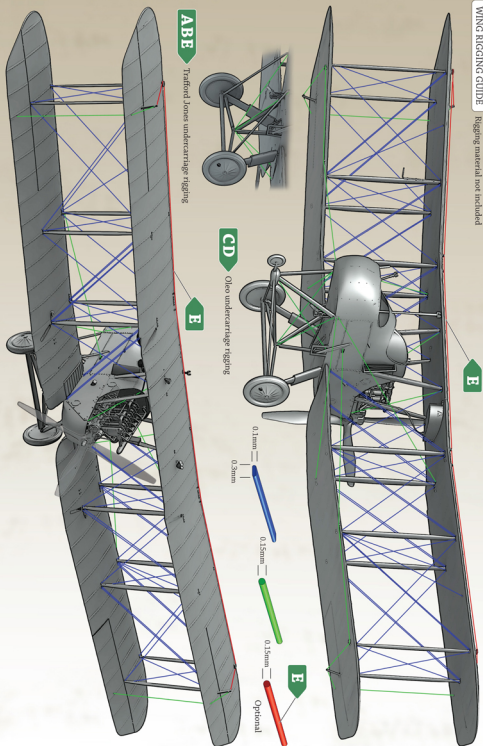
▼ Wing and strut detail from 6341.



8 gal petrol tank detail from 6356 photographed after its capture on 9 March 1916. Tank is unpainted, possibly tin plated with black **p** brackets.



(James Fahey)



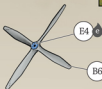
12 PROPELLER



Propeller detail. Frequently a manufacturer's logo was applied to FE.2b propellers. Often this was a single decal but sometimes up to 4 can be seen and they could be found on the front or rear of the propeller blades. We have included 4 of each Lang 54, Boulton & Paul 55, Integral 56 and Beardmore 57 decals for you to choose from if you wish.



ABCD

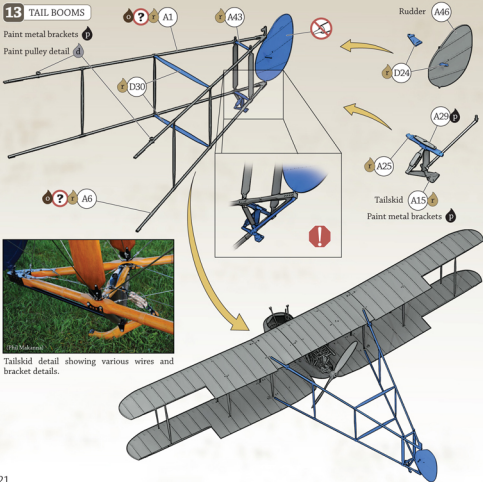


E

13 TAIL BOOMS

Paint metal brackets **p**

Paint pulley detail **d**



Tailskid detail showing various wires and bracket details.

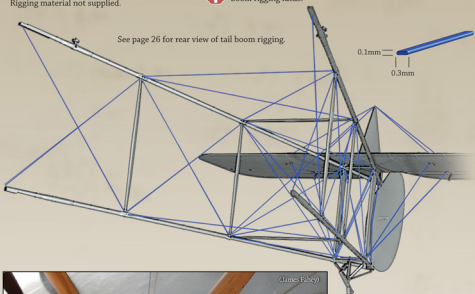
TAIL BOOM RIGGING GUIDE

Rigging material not supplied.



Please visit www.wingnutwings.com hints & tips for structural tail boom rigging ideas.

See page 26 for rear view of tail boom rigging.



(James Fabeiy)

Tail boom detail. Despite what you may have read previously, these booms were not made from bamboo. Each boom is assembled from hollowed out lengths of spruce, joined, routed and then bound in linen cord [98](#) to prevent splitting.

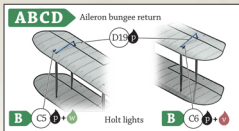
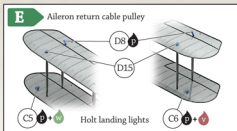
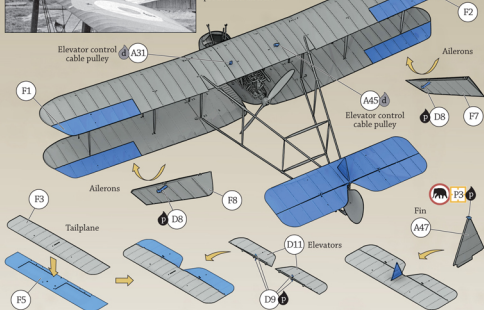


What can happen to the tail booms if not correctly rigged! The 22 Sqn G & J Weir built FE.2b 4285 of Lts RD Walker & C Smith was lost in action on 25 August 1916 after their engine failed. Both were made POW. FE.2b 4285 is shown here after recovery by the Germans.

14 AILERONS AND TAILPLANE



Starboard upper aileron from 6341 clearly showing the white inner half. The bungee cord aileron return seen here was a feature of early production aircraft.



Port lower aileron from 6341. Unusually the inner half of each aileron on 6341 was painted white(?) while the outer half remained in its original clear doped linen. Note the 'British & Colonial Aeroplane Co' (Bristol) stencil marking [140](#). FE.2b ailerons were the same as those of the BE.2c.

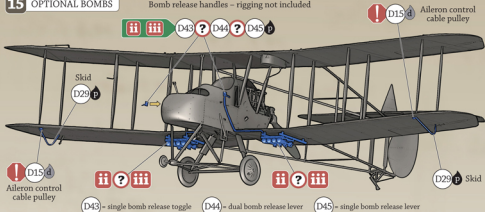
> Tailplane detail from 6341, note the bullet damage to the fin [\(A47\)](#). On some aircraft there was additional rib stitching between the elevator tip and 5th rib.



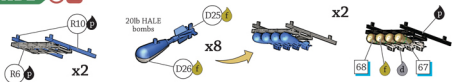
^ The tailplane from this unidentified early production G & J Weir built FE.2b has been hit by an incendiary bullet and set on fire. Note the faint stenciling [133](#) & [134](#) visible on the tailplane components. See also page 36.

15 OPTIONAL BOMBS

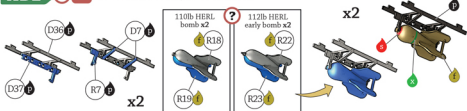
Bomb release handles – rigging not included



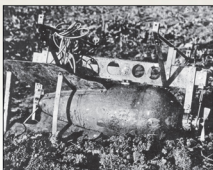
ABE ? ii 20lb bomb carrier and bombs



ABE ? iii 112lb bomb carrier single Mk.II and bombs



Unexploded 20lb HALE bomb.



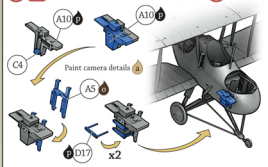
^ Unexploded early 112lb HERL bomb still attached to its 'Carrier 112lb Single Mark II'.

> Unexploded 110lb HERL bomb compared with a small (German 4.5kg Carbonit?) bomb.

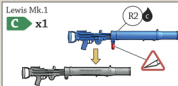
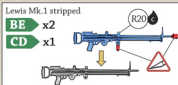
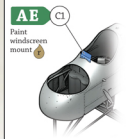
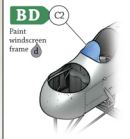
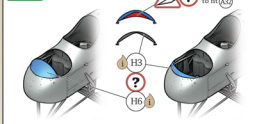


16 NACELLE ARMAMENT AND FINAL ASSEMBLY

iv Thornton-Pickard Type C camera **AD** ?



AD Folding windscreen **?** Trim if required to fit **(A30)**

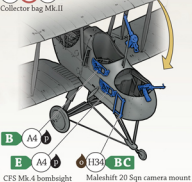


See pages 27-34 for Lewis Gun placement

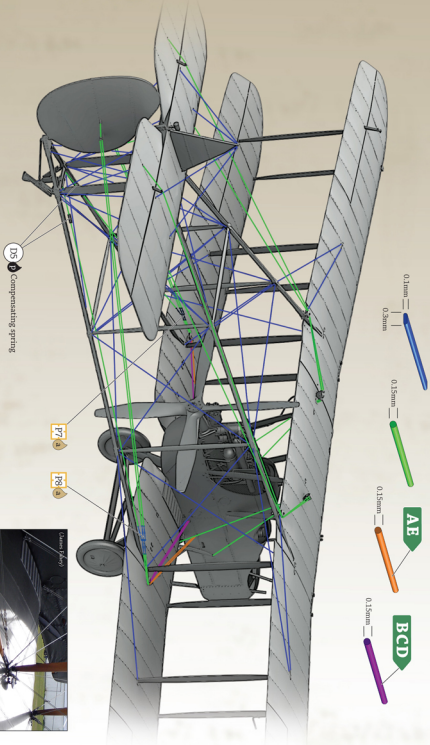
Collector bag Mk.II.



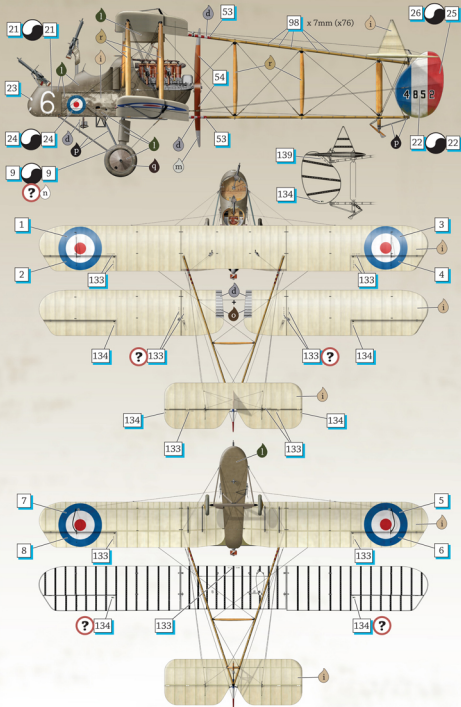
Collector bag Mk.II



< Similar to the photo seen on page 13. The Lewis guns of 6341 were removed immediately after capture and reinstalled on opposite mounts for these photographs. Note the makeshift camera mount and the bullet 'splashes' in the nacelle fabric and nose. The pipe mounted beside the pilot's cockpit is another Lewis gun mount. The original light grey or CDL nacelle colour can be seen inside the radiator shutter. Note the small curved reinforcing patch on the nacelle under the tip of the elevator control horn. The translucent nature of the CDL to center section allows us to see shadows of the internal spar and rib structure.



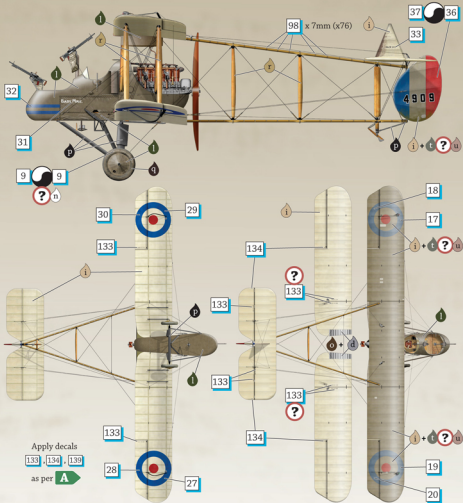
A FE.2b 4852 'C6', G & J Weir built, B Irwin & FG Thierry, 23 Sqn, September 1916





via The War Centre

On the morning of 17 September 1916 2nd Lieutenant Thierry and his observer Sergeant Irwin were on reconnaissance near Marcoing in Northern France when they were attacked and forced down by Martin Zander, commander of Jasta 1. Despite the relatively intact nature of their FE.2b 4852 'C6' both Thierry and Irwin were reportedly killed in the action. While this photo depicts 4852 intact shortly after 'landing', several other photos show it disassembled for transport and confirm many interesting details. The guns (and camera & mount, if carried) have been removed, or perhaps disabled and thrown overboard when it became obvious that there was no chance of avoiding capture. The observer's windshield is fitted but is folded down (19). The port upper wing panel was clear doped linen (DD1) but it is not possible to be so sure about the remaining wing panels, although the balance of evidence would indicate they were finished as we have illustrated them here. The PC10 dope has almost completely worn off the inboard sides and the tip of the nose, exposing the linen covering and almost obliterating the 'C'. Note that the Trafford Jones undercarriage conversion does not have fairings fitted to the front struts (32). Photos purporting to show 4852 paraded in front of German troops in various publications in fact show a different captured FE.2b marked 'C6', unless 4852 was substantially repainted and rebuilt (with faired front undercarriage struts (33)) after capture.



FE.2b 4909 'Baby Mine' is shown here shortly after 2nd Lieutenant Savage & Aircraft Mechanic 2nd class Robinson were made POW on 18 June 1916. Both were wounded in the action but Savage would not survive his injuries. It has been claimed that they were the final victims of Max Immelmann but this is not confirmed. What is certain is that the same action claimed the life of Immelmann who appears to have shot off his own propeller while attacking Savage and Robinson which caused his borrowed Fokker E.III 246/16 to shake itself to pieces. A great number of photos were taken of 4909 after capture and they confirm many interesting details. The pilot's windshield (Z) was completely shattered in the attack, a bombsight (A4) and camera mount (A3) were fitted to the right side of the nacelle, Holt lights (S) & (CS) were mounted on the top wing and extra Lewis gun mounts (133) were fixed to the sides of the pilot's cockpit (outside on the left and inside on the right). The top wing and white areas of the rudder and upper wing cockades have been overpainted with an unconfirmed camouflage colour (probably one of the tinted varnishes because it is not dark enough to be fresh PC10). The bottom wings are almost certainly CDL but could conceivably also have also received a top coat of camouflage tinted varnish. The tailplane remains CDL. Note that the serial number has been applied differently to each side of the rudder, presumably at Squadron level.



Recovery and display of captured FE.2b 4909 Baby Mine.



The recovery of Baby Mine is watched by soldiers and local children.



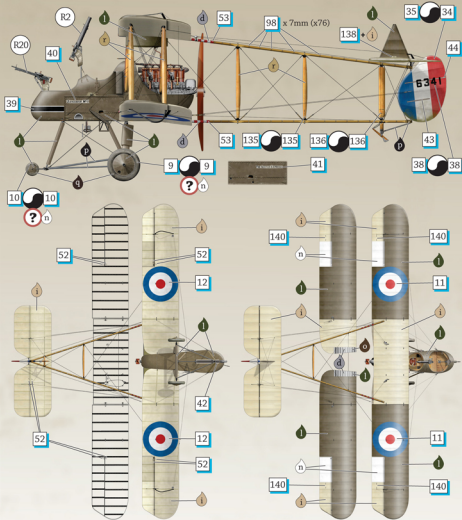
Baby Mine being positioned for public exhibition.



In position ready for display. Note the rubber inner tube protruding from the right wheel.



Wings removed for display. The inner tube is now safely in the possession of the German Army and half the paint from the wheel cover has worn off in the process. It is not often that the upper surfaces of wings are so clearly shown in photos. Note the painted/varnished out white areas of the cockades and the numerous CDL bullet hole patches.

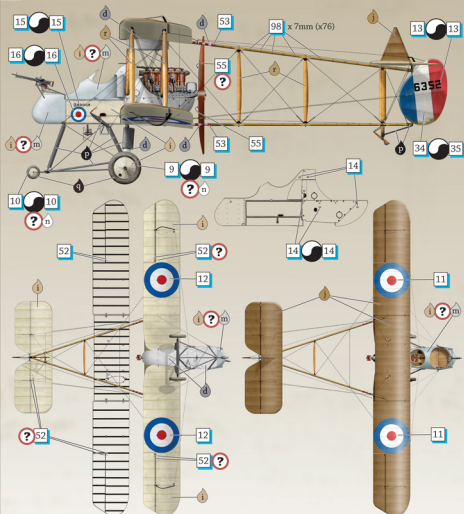


FE.2b 6341 was a presentation aircraft paid for by the people of Zanzibar (now part of Tanzania) and carried 'Zanzibar No.1' on the left of the nacelle and 'The Scotch Express' on the right. An early RAF built machine, 6341 was delivered to 25 Sqn in January 1916 with its nacelle finished in light grey, CDL and unpainted aluminium as per **D** and may have been finished this way when 2nd Lieutenants RS Maxwell & SA Sharpe were credited with a German 'Aviatik' on 27 April. FE.2b 6341 is pictured here after Cpt Douglas Grinnell-Milne (brother to the famous ace Duncan) and observer Cpl D McMaster were forced to land and made POW on 16 May 1916 following combat with 4 German aircraft while protecting a reconnaissance machine. Their victor is believed to have been Adam Bath of FA13 flying a Fokker E.III. A large number of photographs were taken of 6341 after capture and show many interesting details. The photo here confirms the original Lewis gun arrangement of (R20) in front of the observer and (R2) behind, positions which were later reversed by the Germans when they were remounted for photography as seen on pages 13 and 25. Please visit our website for more images of this well photographed aircraft.





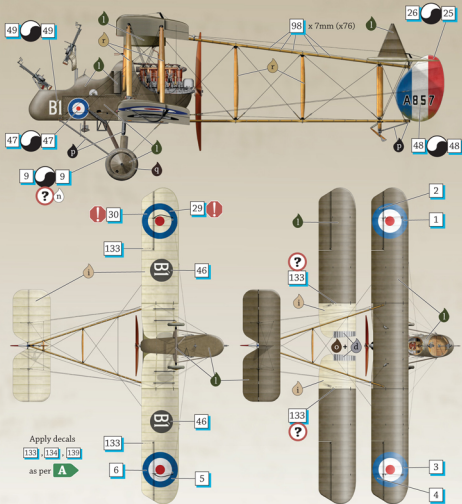
Another view of Fig. 2b 6341 in which we can see many interesting details: the position of the cockpits inboard of the ailerons and 25 Sqm rear Lewis gun mounting. The top center section, center port bottom main plane and tailplane retain their original Clear Doped Linen finish while the nacelle, undercarriage, main planes (outer wing panels) and fin have been overpainted with a dark camouflage colour thought to be a very early mix of FCI10. Very small areas of the original light grey or CDL nacelle colour can be seen inside the radiator shutters (M1) & (M2) as shown on pages 13 and 25.



17 victory ace Max Immelmann stands in the cockpit of FE.2b 6352 'Baroda 15' only recently vacated by a wounded Lt Pinder. The 23 Sqn FE.2b of Pinder and Halford was one of several escorting a reconnaissance machine on 29 March 1916 when 6352 was shot down by Immelmann, believed to be flying Fokker E.II 37/15, to become his 12th confirmed victory. According to Immelmann he fired about 100 rounds at 6342, slashing through the fabric wings, puncturing an engine cylinder, holing the radiator and shooting Pinder through both arms. He also claimed that the observer had failed to fire a single shot in defense. The upper surfaces of the wings and tailplane have been doped with an unconfirmed camouflage colour, most likely to be PC8 because of the opaque nature of the wings, rather than one of the transparent tinted varnishes (PC10 was not in service use at the time 6352 was captured) while the nacelle has light grey (or CDL) ply areas, CDL side panels and bare aluminium metal cowlings. Each aluminium cowl has the factory number 25 [14] stenciled onto it. Please visit our website for more photos of this aircraft.



E FE.2b A857 'B1', G & J Weir built, FP Don & H Harris, 22 Sqn, June 1917



The 22 Sqn FE.2b A857 'B1' of FP Don & H Harris was on reconnaissance near Lesdain in northern France when they were lost in action after combat with 6 German aircraft on 5 June 1917. Harris was wounded in the action and both were made POW and A857 was credited as legendary German ace Werner Voss' 33rd victory. Like many captured aircraft, numerous photos survive which record many interesting details. The photo here shows A857 shortly after landing and damaging the left wheel of its 'Trafford Jones' undercarriage. A CFS Mk.4 bombsight (M) can be seen on the right of the nacelle, Holt landing lights (CS) & (CS) are mounted on the bottom wings and a square pilot's windscreens (C) is fitted. Although almost completely washed out in this photo the nacelle carries the flight number 'B1' (inset) and other photos published in Cross & Cockade Great Britain volume 3 #2 1972 show further details; a replacement left wheel of German origin was fitted after (or during) recovery, the fuselage and wing panels (excluding the CDL bottom center main planes) were finished in faded PC10 as was the tailplane. The starboard lower wing cockade does not have the white portions painted, these remaining CDL.





TVAL FE.2b 6341 photographed at Hood Aerodrome, Masterton, New Zealand during April 2009.



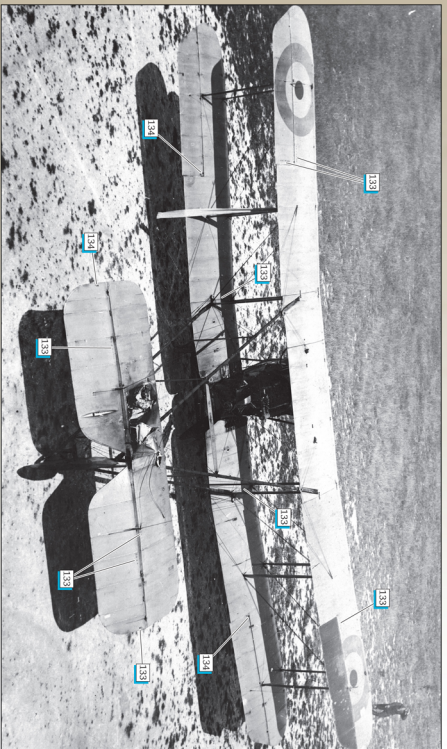
Contact! 160hp Beardmore engine #2192 roars(!) into life in April 2009.



Preparing for take off. In 2009 a Fokker Triplanes represents a minor inconvenience to an FE.2b, 92 years earlier a similar encounter could have very serious consequences for all involved.



November 2009 at Hood Aerodrome. The Lewis gun armament of 6341 is demonstrated to an enthralled crowd of spectators. Please visit thevintageaviator.co.nz for details about their upcoming airshows.



This photo of an unidentified early production G & J Weir built FE.2b was captioned 'a lucky escape'. While not obvious here, component stencil markings [133](#) & [134](#) can be seen on all flying surfaces in the original print. Note the streamer hanging from the port wing strut, bullet damage to the tailplane, numerous bullet hole patches from previous action and the replacement starboard upper aileron (taken from the lower wing of another FE.2b or BE.2c). The wood of the tail booms appears quite dark.



RAF built FE 2b 6351 Baroda 14th was photographed shortly after completion in January 1916 and displays many early production details. A No. 2 Mk. 1 'halkony' mount is fitted for the observer's Lewis gun, unpainted aluminium engine cowl and radiator shutters, clear doped linen nacelle side panels and ply areas finished in light grey (or possibly still in their clear doped linen coverings). The original form of pilot's **(C)** and observer's fabric windscreen **(H)** can be seen. 6351 was the first of 3 (possibly 4) FE 2bs and 1 Bristol Fighter to carry the presentation name 'Baroda 14th'.



Boulton & Paul built FE.2b S203 is seen here shortly after completion in November 1915. Before being crashed and written off in October 1916 it would have the presentation name 'River Plate' applied to the side of its CDL nacelle and 'Esperanza' on the tip of its grey nose. Note the bare aluminium engine cowls, gravity petrol tank and teardrop fairing (H1) & (H2) on the undercarriage.



3-D Modelling by Bryan Wall

Bryan Wall is a product designer, specialising in computer aided design and 3D modelling. He has 9 years experience as a designer for consultancies in the UK and New Zealand, and has designed, engineered and modelled a wide variety of products, from exercise bikes, barcode scanners and razors, to windscreen removal tools and automated toilets.

Bryan is particularly interested in the ingenuity of the design and engineering evident in these planes, and the comparison of the concurrent development between the warring nations. He is also fascinated with the history conveyed through the surviving reference photographs and drawings. "God is in the details" as they say in the design industry and Bryan feels that the attention to detail and accuracy of the Wingnut Wings kits is what makes them so special.

Aside from design, Bryan is interested in a wide range of sports and music, he is a guitar player and is currently teaching himself the piano, and he also brews his own beer.



Project Co-ordinator, Richard Alexander

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

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

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

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



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 Fockkers 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 website at: www.ronnybarprofiles.com



Box Art by Steve Anderson

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

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

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



32014	1/32 FE.2b Early	Qty
0132014A	A parts	1
0132014B	B parts	1
0132014C	C parts	1
0132014D	D parts	2
0132014F	F parts	1
0132014G	G parts	1
0132014H	H parts	1
0132014P	Photo-etched metal parts	1
132E0010	E parts Beardmore/AD Engine	1
132R0001	R parts RFC Armaments	2
7132014	Instructions	1
9132014	Decals	1
9132014b	Decals	1

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



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



32012 - 1/32 RE.8 'Harry Tate'



32013 - 1/32 Sopwith Pup RFC

Also available from
www.wingnutwings.com

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