

The AMC DH 9a (Aircraft Manufacturing Company de Havilland type 9a) bomber arrived late in the Great War and was borne out of the necessity to find a replacement for the underperforming DH 9. Itself intended as a replacement for the 275-30thp Rolls Roye Eagle powered DH 4 (with the pilot repositioned closer to the gumen for improved communication) the DH 9 was in fact a great leap backwards due in no small part to the inferior performance and unreliability of its 230thp Puma engine.

Due to the workload at AMC, the initial design work for the DH 30 was undertaken at Westland Aircraft Works. AMC built DHI2, eCS50 was modified to accept a SS00 polls Royce Eagle VIII engine in anticipation of the immanent arrival of the plentful 400thp. Liberty VII engine from America, With its larger wings and re-designed nose CSS50 started flight testing in February 1918. The 20 prototype, and the Lat to be firsted with the Liberty VII engine, was AMC built CSI22 which took to the acr on 19 April 1918. In July 1918 its appeared that the supply of Liberty engines could dry up so 3 red prototype, Westland built 87644, was produced to accept the SS00 Fagle VIII, but a sit turned out the supply of Liberty engines proved to be enough for RAT new 1918.

Remarkally, an initial production order for 400 DH 29 was placed with the Whitehead Aircraft Co. in January 1918, a month before the 12 protupes flow. The DH 29 was unanaforated by Whitehead, AMC. Wettalead Aircraft Works, Morn Beggeron 8, Co. and The the 12 protupes flow. The DH 29 was unanaforated by Whitehead, AMC. Wettalead Aircraft Works, Mann Beggeron 8, Co. and The Valcam Motor 8 Engineering to on a well as numerous rebuilds and small post way production orders from the likes of the del Istudies Aircraft Co, Handley Page Ldt, HG Hasheer Engineering Co Land Short Rose announces others. An arrent can order for 4000 USD-94 was placed with the Curtiss Aeroplane and Motor Company but was candided due to the armistic and it appears that only 13 USD-94 were built, all prototypes. At least 2700 unificance docises were built in the newly formed Society Union as the Folialization VI.

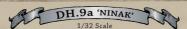
The DH 9. Winal? (Vin = 9, a.k. = A) entered from line service with 110 Sgn Independent (strategic hombing) Air Force (IAF) of the Royal Air Force (RAF) at the end of August 1918. While 110 Sgn was the only squadron in France to be fully equipped with the DH 9. before the armistice, it also saw active service with 99 Sgn IAF, 18 Sgn RAF and 55 Sgn RAF. Additionally 33 DH 9.ss were used by the USMC Northern Bombing Group from September 1918. Post war the DH 9.s served with the RAF in Germany, Russia and the Middle East and saw service in Canada and the Australian Ri-Crops as well as the Soviet Union and in Union (as the R-1).

While there is little controversy about the common colour scheme of PC10 (Protective Covering number 10) for the linen upper unfereas end DC1, (Geal Deepd Linen) loser surfaces, and the gazed deal of controversy as to what colour PC10 actually was. Made from mixes of yellow ochre, into code and lamp black pignents it varied between olive dash and chockate brown, depending on the manner of the control of the period of the deservation of the control of the period of the deservation of the control of the period of the deservation of the control of the period to the deservation of the control of the period to the deservation of the period of o

Wingspan:			
45' 11" (14m)	30° 3" (9.22m)	4815lb (2184kg)	120mph (193kph)
Approximately 2000	February 1918 to 1928	400hp Liberty V12	18,000° (5486m)

.303 (7.7mm) Vickers gun and 1 or 2 .303 (7.7mm) Lewis guns on Scarff ring. Up to 660lb (300kg) of bombs.

Handbook on the DH Sp. Ampsjane, Air Ministry, 1524 - Schedule for DH Sp. - Windook International 200 H3 2004, Windook International 200 H3 2004, Windook International 200 H3 2004 - Windook International 200 H3 2004 - Windook DH Sp. Sp. Sp. String, John Anderson, 2010. - The DH 444DH Sp. Ray Sp. Stringer, Gordon Page, Air Bettain 1989 - de Hardland DH 50 RAF 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 - The Virtuge Aviator Ltd. RAY 1918 500, Profile Publications, Chue Bower 1978 500, Prof



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 kitsets.

Cut out each decal as required. Soak in warm water for 15 seconds. Slide off backing paper onto gloss Decals: 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.

Construction Step

Decal



Attention



Part Number Do Not Cement





Photo Etch Part

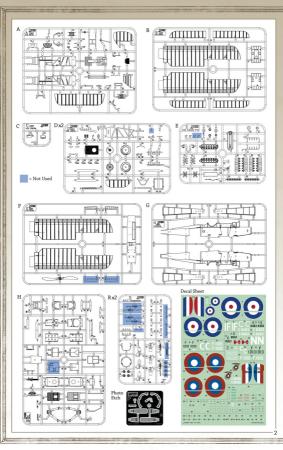
Cement For Metal

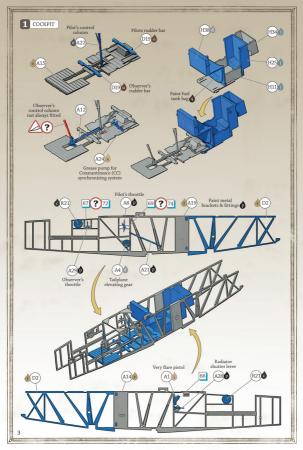


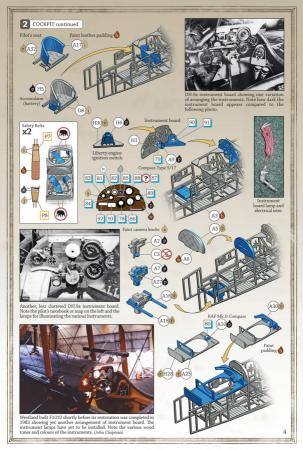
Paint Colour

Brass	X31	54	
Copper	XF6	12	
Gun Metal	X10	27004	
d Aluminium	XF16	27001	
Steel	XF56	27003	
f Dark Yellow - matt	XF60	74	
g Rust	XF9	113	
Leather - semi gloss	XF52	62	
Clear Doped Linen (CDL) - semi gloss	XF55	121	BC05
Battleship Grey - semi gloss	XF82	106	BC01
PC10 - semi gloss	XF62	155	BC03
Gloss Clear	X22	35	
n Grey	XF83	165	
White	XF2	34	BC08
Dark Wood* - semi gloss	XF68	98	
Black - semi gloss	X18	85	
Rubber - matt	XF69	66	
Light Wood* - semi gloss	XF78	93	
Red - matt	XF7	60	

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









the placement of decal 70 behind the compass and 92 & 93



Pilot's seat, throttle (A8) and tailplane elevating gear (A4) details.



Note the aluminium magazine for Vickers amm



Control column $\overbrace{\text{A22}}$ with firing handle for the Vickers. Note the bomb sighting hole in the floor.



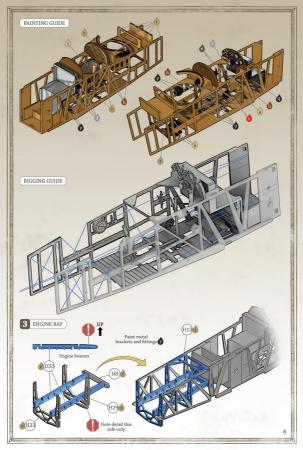
Observer's throttle (32), seat and Lewis gun ammunition drums (821). Note the interior colour of the linen fuselage covering.

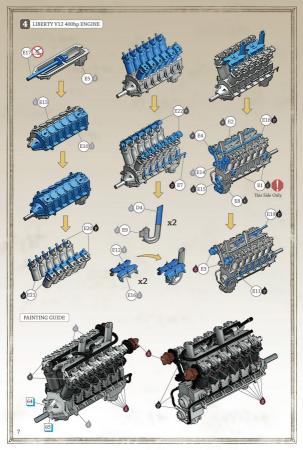


RAF Mk.II compass.



Accumulator (battery), grease pump for the Constantinesco (CC) Vicker gun synchronizing system and empty bracket for the Very flare pistol. The switch board controlled the instrument board lights.







This page and page 9 show a 400hp Liberty V12 engine after restoration to working condition.



Left side view, note the rubber hose fittings on the water pipe.



Left front cylinder spark plug detail.



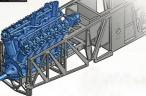


Left side rear detail.





More colour engine photos on the following page









Another view showing details on the top rear of the engine.



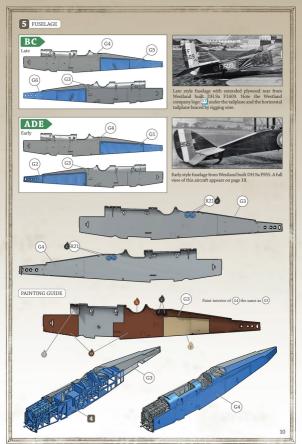
ing (E1) details on this side only.

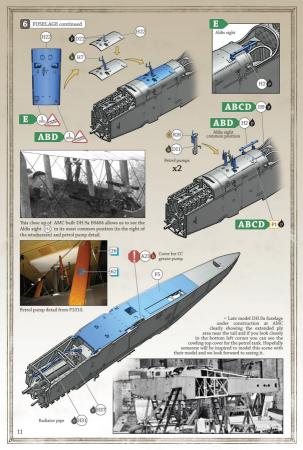


Right side view showing exhaust attachment and $\stackrel{\frown}{(E1)}$ detail.



Top view showing lots of nice detail for the modeller. Note that engines installed in DH.9as were fitted with 2 carburetor intake pipes (D4) or (DS) , not the single one shown here.



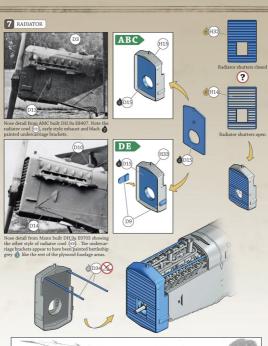


21 March 1918 and served with 99 F951 was the 1st DH.9a built by al control horn and that



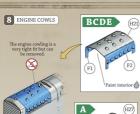


the tailplane struts cowlings are still aluminium with late model features. on 17 July 1918 and features many H3452 was from an order placed Another Westland built DH.9a, GS) & (G6) and the rudder has the black hinge details but the fuselage dy rear section is now extended decals on the struts Engine





This AMC hull DH 9a B8484 was one of seven 110 Spa sincraft to be lost (out of a total of 12) when they failed to return from a bomburd and on Frankfurt on 21 October 1918, B8484 had been on squadeno strength for sut 4 days and the cove of 214. A WP, Evans and LR W.I. Thompson were both made POW. Note the damage to the propeller, port wing and rudder from when it overgramed on crash landing and bow dark the batthein jper pyly areas of the fuselage appear under the overcart side, AMC company decals [56] can be seen on all struct.



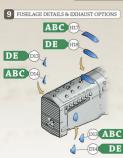


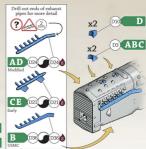
Nose cowling details from the 1st Liberty engine powered DH.9a C6122. Note the bare aluminium d cowlings (2), (014), (03)





Another view of AMC built DH.9a E8484 showing battleship grey cowlings (113) (127), (103 & (114) Note the modified exhaust (27) and small AMC decals 56 on all the struts.



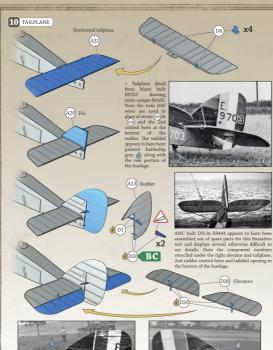








F1010 displays its radiator cowling [133], modified exhaust [024] and triangular side fairing [013]. Westland Aircraft Works decals [62] have been applied to all struts and undercarriage legs. (David Frowen)

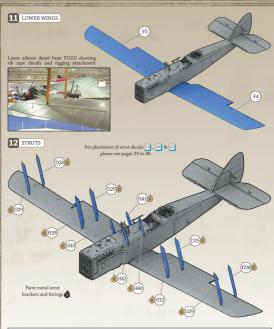




The tailplane of AMC built DH.9a E8484 after a forced landing in Germany on 21 October 1918. Note the battleship grey \emptyset fairing at the base of the fin, struts [133] & [538] and the white line separating the blue and PC10 of the rudder.

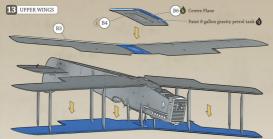


Westland built DH.9a F955. Note the struts (H3) & (H36) bracing the horizontal tailplane and unpainted aluminium fairing at the base of the fin.





DH.9a C6122 displays it's clean but purposeful lines. C6122 was intended to be built by AMC as a standard DH.9 but was completed as the 1st Liberty engine powered DH.9a prototype. Note the orientation of the ailerons.



Invert model to attach upper wings. Use liquid glue for plastics. Glue struts (H4), (H4), (H4) and (H4) before wing struts.



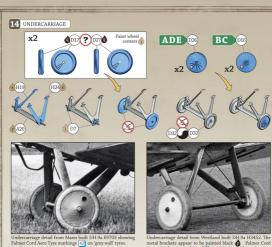
Centre plane details from Westland built DH.9a F951. Compare the dark colour of the 8 gallon gravity tank with restored F1010 as seen on page 14. Westland company decals 62 are barely visible on the struts.

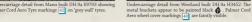


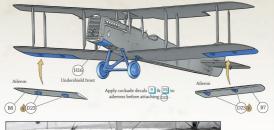
Place model in empty box lid as shown while the glue dries to ensure correct alignment of the wings.



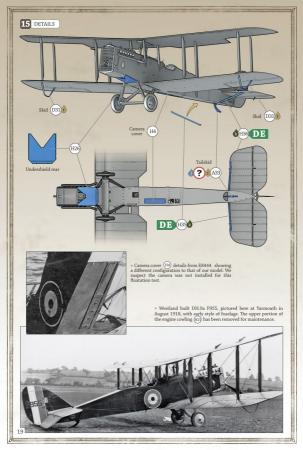
B8407 was the 1st DH 3a built by AMC from an order for 400 aircraft placed on 21 March 1918. AMC company decale [55] can be seen on some struts as can 55]. Armament has yet to be fitted and may not have been at all because B4076 is only recorded as having served at 1 Flight Training School. Note the early style fuselage and very different tones visible in the blues of the front 17 rudder strips and fuselage cocks.







Lower aileron detail from E8484. Note the triangular pulley inspection covers.





F1609. The blades are covered with linen which appear to have been doped grey a





F1010 showing its bomb carriers with 20lb Cooper and 100lb HALE bombs. Note the rigging visible in the starboard wing cut out. (David Fre





Close up of bomb carrier and 20lb Cooper bombs.

 100lb HERL (High Explosive Royal Laboratory) bomb. Note the substantial fin stiffening stays, arming vanes (propellers) and lifting lug. This unexploded bomb was photographed by the Germans after it failed to explode on 4 May 1916.

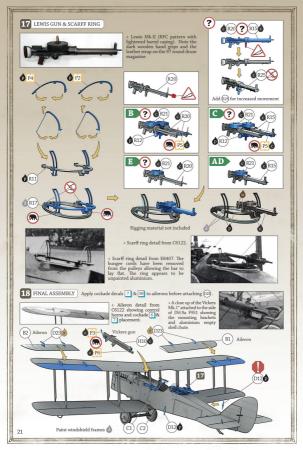


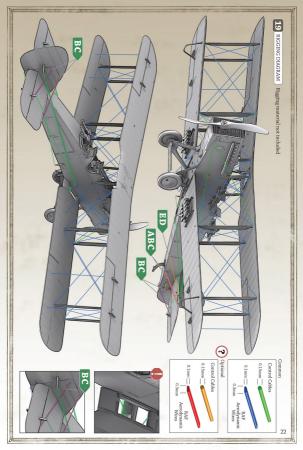
112lb HERL bomb.







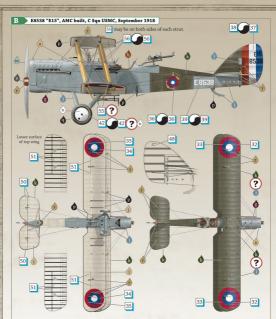








AMC built DH.9a E8483 arrived at 99 Sqn IAF RAF in France on 21 October 1918. This photo was most likely taken after the armistice when many of these great aircraft were relegated to the peaceful duty of carrying mail (see the bags on the ground). It is fitted with a single Carrier 112lb Single Mark II under the fuselage while the Cooper bomb carriers have been removed from under the wings. Note how the starboard bottom wing cockade does not line up with the aileron indicating a recent replacement and that the white(?) paint is wearing off the wheel covers. The undercarriage legs could be natural wood or painted a sillustrated. Another photo of E8483 appears on page 29.



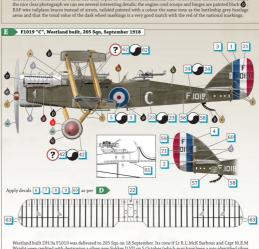
AMC built DH.9a E8538 was sold to the American government and used by the USMC Northern Bombing Group. British wing and rudder markings have been overpainted with American colours and it has been given the USMC designation E-15 although the British serial numbers were retained. We have shown the fuselage cockade as being overpainted with fresh gloss battleship grey but it is possible that a local equivalent was used. Although



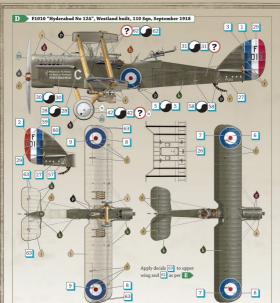
not a particularly clear photograph we can see some useful details including the style of exhaust and how the 'E' of the original AMC serial was incorporated into the USMC 'E15' number, faintly visible in the white portion of the rudder.



AMC built DH.3a ESSS3 was delivered to 155 Sqn in October where it was photographed at Hendon on the Zond but, deepter our charactic boar at Illustration, the Armisties would be signed before 155 Sqn were fully equipped and ready to go to Pance. A nice clear photograph of this aircraft appears in De Havilland Aircraft of World Way One, J.M Bruce, Arms and Armourd Pens, 1991 as well as less descer opies in Windrodoc International vol 92 5000 and The DH.7d/H.9 File in the nice clear photograph we can see several interesting details; the engine cowl scoops and hinges are painted black $\frac{1}{9}$. Ref. were talplane therees intended or starts, talkfully painted with a colour the same tone as the battleship gery founded.



Westland built DH 194 F1019 was delivered to 205 Sqn on 18 September. Its crew if It R. R.L. McK Barbour and Capt M.E.M Wright weer credited with destroying a silver grey Folder DVII on 5 October (which may have been a mis-identified silver grey Ffal DXIII). 205 Sqn was formed from 5 (N) Sqn BNAS when the RFC and RNAS combined on 1 April 1918 to create the RAE Note the bare aluminium fin fairing and engine cowlings with \$\frac{1}{2}\$ hinge detail.



Westland built DH.9a F1010 was delivered to 110 Spin in August and flown by Capt A.G Inglis with 2Lt W.G.I. Bodilye as observer. Bodilye claimed a Fokker D.VII with a black and white tail as OOC (Out Of Control) on their 2nd operation on S2 September. On just their 4th operation on 5 October they were lost after heavy combat and inglis and after heavy combat and inglis and after heavy combat and inglis and step and the second of the



bombing during WWZ PIO10 was moved to the relative safety of Poland, along with the other surviving museum aircraft, where it remained until an exchange was arranged by the RaF For Spiffite IEXPLF SM411 in June 1977. After being beautifully restored it was put on display in the RaF Museum Hendon in 1983 where to this day it remains the only surviving DH.3. Examination of fragments of pre-1977 restoration fisseless phowed a colour very much like Tampia, PFEC Olive Drah, although this may have been applied during a prior restoration by German museum staff before WW2. Note that in this photo the Lewis gan arrament and the fairing at the base of the fin have yet to be installed. (Osh chapman)



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Before. . AMC built DH.9s H72 seen here in service with 27 Sqn in 1922 where it has been turned into an airmail furniture delivery vehicle. In addition to the bed and suitcase strapped to the rear of the fuselage there are bundles of stores slung from the wing bomb carriers. Note the starboard bottom wing cut out has been extended and the engine side cowlings have been removed.



After. M72 completely repainted in post war colours and markings. From a batch of 200 aircraft ordered on 4 July 1918, H72 was completed to Date to see action during the First World War but went on to a long career with 75 75, m6 50 yra and H6 pAR in India until at least March 1930, possibly when this photo was taken. Despite all the changes since the previous photo was taken, the engine side covilings are will not fitted.



Westland built DH.9a F1609 from page 10. Note the unpainted aluminium engine cowlings with black hinge detail and that no Scarff ring or gun sights are fitted.



3-D Modelling by Nick Moore

Nick Moore is an industrial design graduate and experienced scale modeller with a longstanding interest in most periods of history. Before entering this project he knew less about WW1 aviation than later periods and was surprised at the innovations achieved during this time. His investigation of WWI aircraft has encouraged further interest in the aircraft of the 'Golden Age' of the

The 3D design challenge he found in creating the Wingnut Wings models is adapting the real aircraft to scaled down replicas with the necessary adjustments for injection moulding, when of course, as a modeller - he would like 100% reality.

20's and 30's which have particularly beautiful forms.

Nick was at one time a private pilot but never took the controls of a bi-plane - the oldest plane he was rated in was that classic old tail dragger, the Piper Cub. These days most of Nick's spare time is spent with his young family.



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 Convent 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



Argentina.

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 uilding models: Spitfires and Messerschmitt first... Camels and

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

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

etter 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.



32007	1/32 DH.9a 'Ninak'	Qty
0132007A	A parts	1
0132007B	B parts	1
0132007C	C parts	1
0132007D	D parts	2
0132007F	F parts	1
0132007G	G parts	1
0132007H	H parts	1
0132007P	Photo-etched metal parts	1
132E0008	E parts Liberty V12 Engine	1
132R0001	R parts RFC Armaments	2
7132007	Instructions	1
9132007	Decals	1

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



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



lisso' 32004 - 1/32 Bristol Fighter



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

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