

# WINGNUT WINGS



## AMC DH.9

1/32 Scale

The AMC DH.9 (Aircraft Manufacturing Company de Havilland design 9) bomber was intended to be an evolutionary successor to the highly regarded 275hp V12 Rolls Royce Eagle powered DH.4. Due to the existing and expected demand for Rolls Royce Eagle engines in the rapidly expanding RFC & RNAS the DH.9 was designed to be powered by the BHP (Beardmore-Halford-Pullinger) 'straight 6' engine which initially promised 300hp. The DH.9 utilized many proven components from the DH.4 such as wings, undercarriage, tailplane and basic fuselage design. Changes included moving the pilot rearwards for improved communication with the gunner, the petrol tank moved forward and the nose was redesigned to accommodate the new engine. It was intended to have a greater range than the DH.4 allowing it to bomb targets inside Germany. Alas it was not to be, and the DH.9 proved to be a great leap backwards.

As with so many Great War aircraft the tale of the DH.9, itself a highly competent design, is intrinsically linked to that of its engine. The BHP engine was put into mass production as the Siddeley-Deasy 'Puma' and never consistently achieved the promised 300hp, in actual fact its output was only 230hp and, to add insult to injury, it proved to be staggeringly unreliable. The 300hp BHP engine powered DH.9 prototype was converted from AMC built DH.4 A7559 and first flew in July 1917. The first production DH.9, Siddeley-Deasy powered AMC built C6059, took to the air in November 1917 and it was almost immediately clear that, because of the engine, performance was not going to surpass that of the DH.4. Nevertheless, the DH.9 was already in mass production with 11 different manufacturers, as was the flawed Puma engine, meaning that British bomber squadrons would now have to make do with it... or nothing at all. Although production orders for the DH.9 were placed in June 1917, engine and production delays meant that aircraft were not delivered in serious numbers until the end of 1917 but this situation gradually improved so that eventually a new DH.9 was completed every 40 minutes.

The first units to go into action with the DH.9 were 98, 206 and 211 Squadrons of the newly formed RAF in April 1918 at which time the shortcomings of the Puma engine immediately made themselves known. Broken valve springs, cracked cylinders and defective altitude controls on the carburettors lead to serious engine reliability problems which frequently required a hasty landing in German occupied territory. Towards the middle of 1918 the problems with the carburettors were overcome which markedly improved performance and finally allowed a fully loaded DH.9 to reach it's intended ceiling of 15,500'. Several other improvements were made such as adding bracing struts under the horizontal tailplane, an additional magneto access door on the port side of the fuselage and extending the exhaust manifold to funnel the fumes away from the crew. Despite its numerous problems the DH.9 soldiered on until the Armistice and beyond, serving post war with the RAF on occupation duties in Germany as well as in Africa before being declared obsolete in 1921. It also saw widespread foreign service in The Netherlands, The Netherlands East Indies, Greece, Poland, Spain, Australia, New Zealand, India, Russia, Bolivia, Chile, Estonia, Ireland, Persia, Peru and South Africa as well as extensive civil use as a passenger aircraft. Any history here is of necessity very brief so we encourage you to seek out the references listed below for a more thorough understanding of this aircraft.

While there is little controversy about the common colour scheme of PC10 (Protective Covering number 10) for the upper surfaces and CDL (Clear Doped Linen) lower surfaces, there is a great deal of controversy as to what colour PC10 actually was. Made from mixes of yellow ochre, iron oxide and lamp black pigments it varied between olive drab and chocolate brown, depending on the mix. It appears that early, fresh PC10 appeared more olive drab while later mixes and aircraft exposed to the elements for some time would appear more chocolate brown. Plywood panels appear to have been painted Battleship Grey or with a PC10 equivalent paint as were the aluminium cowlings, although some were left unpainted. Interior metal brackets and fittings were usually painted black. Exterior metal brackets attached to the ply areas of the fuselage have also been noted as black but usually they were overpainted when the Battleship Grey or PC10 equivalent paint was applied. All fabric surfaces exhibited a gloss appearance when new which would weather to a semi-gloss or matt finish in service.

Richard Alexander 2013

Wingspan:	Length:	Max Weight:	Max Speed:
42' 4&8/8" (12.94m)	30' 9" (9.37m)	3669lb (1664kg)	111mph (179kph)
No. manufactured:	Production:	Engine:	Ceiling:
Approximately 3900	July 1917 to 1919	230hp Siddeley-Deasy Puma	15500' (4724m)

#### Armament:

.303" (7.7mm) Vickers and 1 or 2 .303" (7.7mm) Lewis guns. Up to 460lb (208kg) of bombs.

#### References:

Windscock Datafile 72, Aircro DH9, JM Bruce 1998 - Schedule of Spare Parts for the De Havilland 9 2-Seater Fighter, RAF August 1918  
The DH.4/DH.9 File, Ray Sturtivant & Gordon Page, Air Britain 1999 - The Vintage Aviator Ltd. - 1914-18 Aviation Heritage Trust  
Colin Owens - Private Collections

# AMC DH.9

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

**P1** Photo Etch Part



Cement For Metal



Other Side



Paint Colour

All colours	Tamiya	Humbrol	Misterkit
a Brass	X31	54	
b Copper	XF6	12	
c Gun Metal	X10	27004	
d Aluminium	XF16	27001	
e Blue - semi gloss	X4	15	15052
f Dark Yellow - matt	XF60	83	33440
g Rust	XF9	113	30045
h Leather - semi gloss	XF52	62	30219
i Clear Doped Linen (CDL) - semi gloss	XF55	121	26405
j Battleship Grey - matt & semi gloss	XF82	106	35164
k PC10 early - semi gloss	XF62	-	34083
l PC10 late - semi gloss	XF62(x2) + XF10(x1)	155	-
m Light Grey - matt	XF80	147	36492
n White - semi gloss	XF2	130	
o Dark Wood* - semi gloss	XF68*	98*	30111*
p Black - semi gloss	X18	85	
q Rubber - matt	XF69	66	35042
r Light Wood* - semi gloss	XF78*	93*	30340*
s Red - gloss	X7	19	11350
t Orange - gloss	X6	18	22246
u Light Blue - semi gloss	XF2(x10) + XF18(x1)	34(x10) + 96(x1)	25550

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

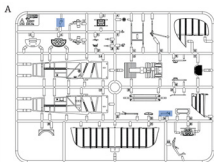
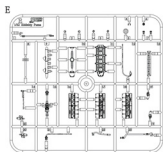
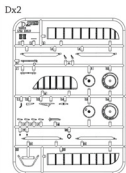
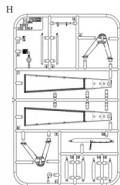
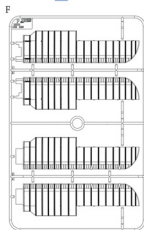
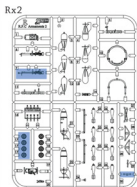
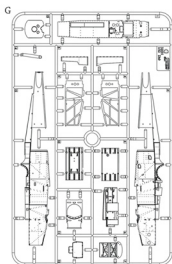


Photo Etch



■ - Not Used



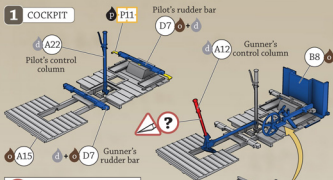
Decals



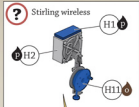
Decals



# 1 COCKPIT

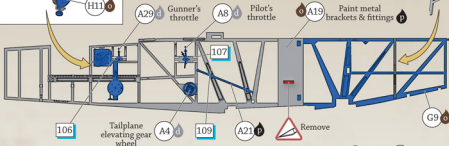


Pilot's cockpit from restored DH.9 D5649 in the Imperial War Museum Duxford UK showing the control column (A22), tailplane elevating gear wheel (A4), throttle (A8) and Vickers magazine (H2).

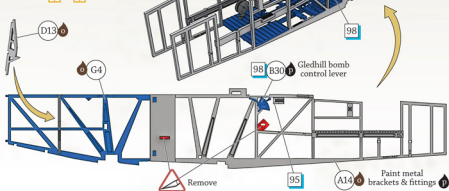


Grease pump for CC (Constantinesco) synchronizing system

Radiator lifting gear wheel (B33)



Another view of D5649 showing the radiator lifting gear wheel (B33). Note the wide waist belts (P1 & P5).





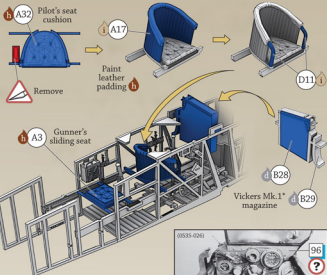
## 2 COCKPIT continued



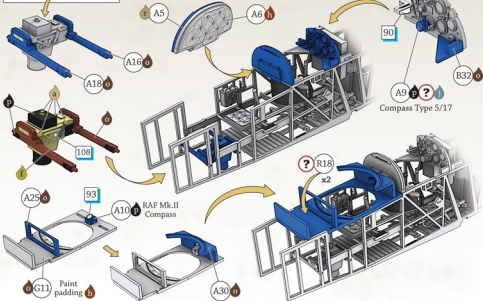
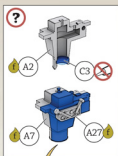
Pilot's seat from D5649. The electrical switch box has been seen in several different locations on the DH.9.



This unidentified DH.9 instrument board has a slightly different instrument layout.



Instrument board showing one arrangement of instruments. Note the Compass Type 5/17 (A9), electrical switch box and empty Vickers machine gun mount. The hole in the windshield (C4) was for the Aldis light (H5).



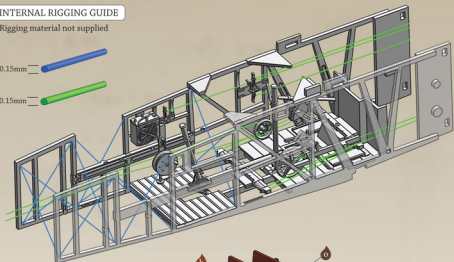
## INTERNAL RIGGING GUIDE

Rigging material not supplied

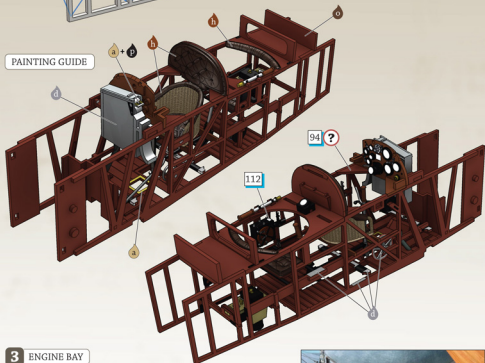
0.15mm



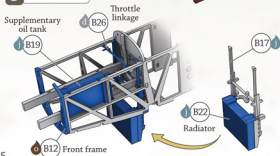
0.15mm



## PAINTING GUIDE

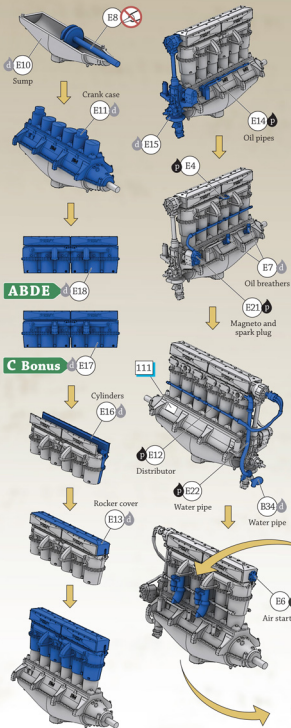


## 3 ENGINE BAY



Radiator detail from Waring & Gillow built DH.9 F1258 in the Musée de l'Air et de l'Espace Paris France.

**4** 230hp SIDDELEY-DEASY PUMA ENGINE



**ABDE**



230hp Siddeley-Deasy Puma engine detail from the unidentified DH.9 on page 7.

**C Bonus**



~ 230hp Siddeley-Deasy Puma engine detail from DH.9 F1258. Note the Zenith Carburettor detail **E17** & **E19**.



**ABDE**

Claud-Hobson carburettor



**C Bonus**

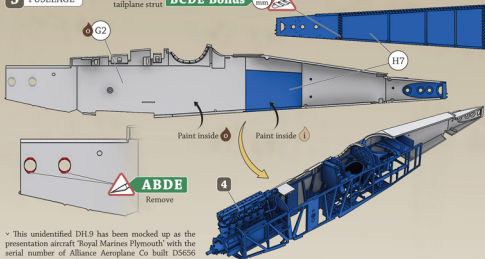
Zenith carburettor

## 5 FUSELAGE

Drill hole for  
tailplane strut

**BCDE Bonus**

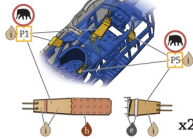
1 mm



▼ This unidentified DH.9 has been mocked up as the presentation aircraft 'Royal Marines Plymouth' with the serial number of Alliance Aeroplane Co built D5656 temporarily fixed to the fin. It has been finished overall in Battleship Grey, PC10 and CDL. The undercarriage, almost all metal fittings and the skids (022) appear to have been painted Battleship Grey.



Safety Belts



**BCDE Bonus**

1 mm



Drill hole for  
tailplane strut

Gunner's  
control  
column

?  
B24

0.5 mm



**Bonus**  
Drill hole for long  
exhaust pipe

**ABC**

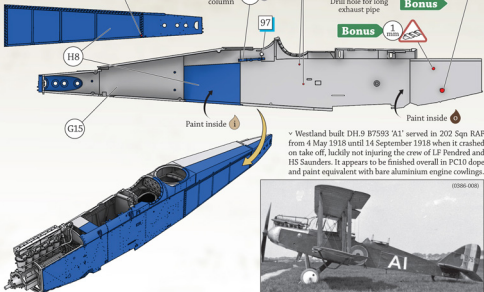
**Bonus**

2 mm



**Bonus**

1 mm



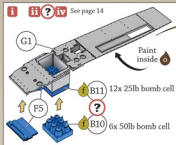
▼ Westland built DH.9 B7593 'A1' served in 202 Sqn RAF from 4 May 1918 until 14 September 1918 when it crashed on take off, luckily not injuring the crew of LF Pendered and HS Saunders. It appears to be finished overall in PC10 dope and paint equivalent with bare aluminium engine cowlings.



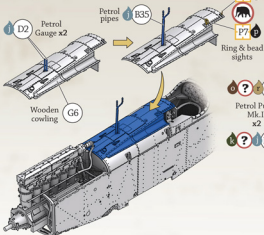
(0386-008)

## 6 FUSELAGE continued

**i ii ? iv** See page 14

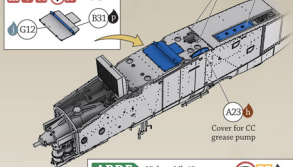


Fuselage underside detail from F1258 showing the Negative lens bomb sight and bomb cells. Note the black metal brackets and Battleship Grey painted plywood panels.

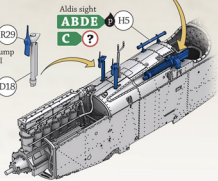
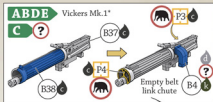


Vickers Mk.1\* installation on DH.9 D5649 showing the chute (B4) for empty disintegrating belt links and ring (P7) & bead (P8) sights.

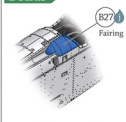
**iii v vi ? iv** See page 14



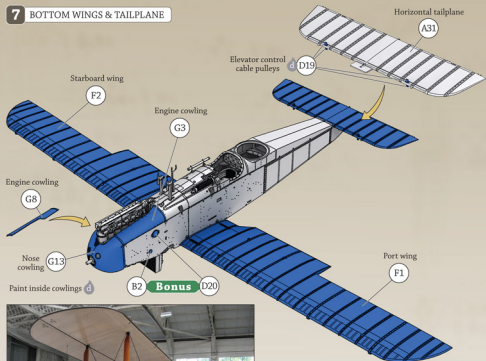
Petrol pump (D18) + (R29) and water tank (H5) detail from F1258.



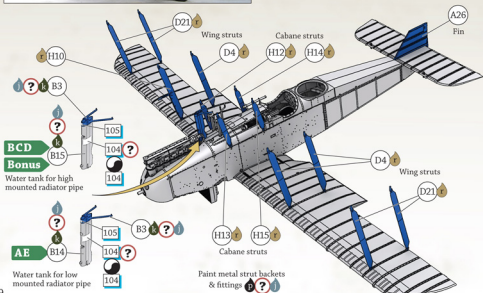
**Bonus**



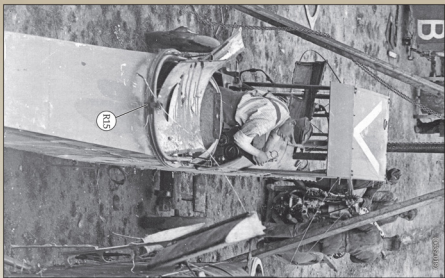
## 7 BOTTOM WINGS & TAILPLANE



< Wing and strut detail from DH.9 D5649 in the Imperial War Museum Duxford UK. This aircraft was originally built by the Alliance Aeroplane Co/Waring & Gillow and was from an order for 300 aircraft placed in July 1917. It was possibly used briefly by 110 Sqn in June 1918 before being gifted to India from where it was recovered in 2000 and beautifully restored to the condition you see here.



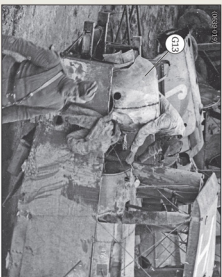




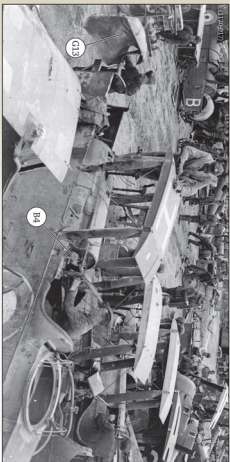
10589 019

> An RAF Airman prepares to remove the water tank (G15) from DH.9 'H'. Adbestos(?) cord has been wrapped around the port front exhaust strut (G12) to protect it from hot exhaust gases. Note the nose cowling (G13) in the engine bay and that the petrol pumps (G14) do not have their aerodynamic fairings fitted.

^ The nose cowling (G13) has just been removed from DH.9 'H' and the Airman now appears to be removing the bolts which fix the water tank brackets (B3) to the center section. Two more unidentified DH.9s can be seen behind 'H'. Compare the position of the DH.9 Pilot's cockpit with that of DH.4 'B' in the background.



10589 018

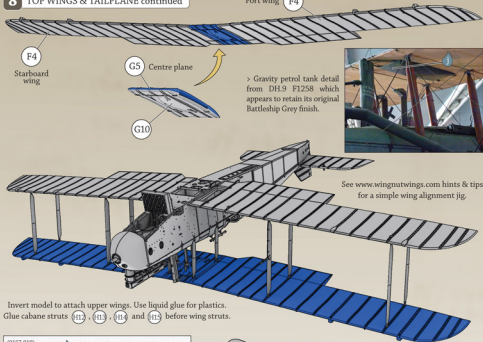


10589 017

DH.9 'V' is being salvaged for usable parts. Note the gravity tank filler cap on top of the center section (G5) - (G16).

## 8 TOP WINGS & TAILPLANE continued

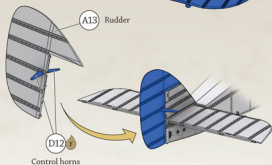
Port wing F4



Invert model to attach upper wings. Use liquid glue for plastics. Glue cabane struts (H2, H3, H4 and H5) before wing struts.

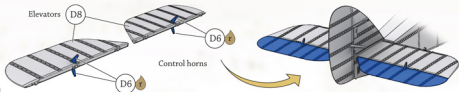


Gravity petrol tank detail from captured DH.9 B7620 **A**



< Tailplane detail from DH.9 D5649. Note the wooden control horn fairings, double rudder control cables and that the aluminium fairing is missing from the bottom of the fin.

> Tailplane detail from DH.9 B7623 as shown on page 15.

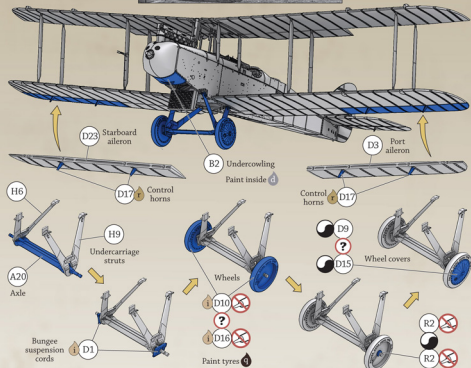




## 9 UNDERCARRIAGE



Port aileron from the unidentified DH.9 on page 18.



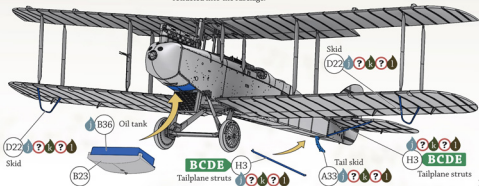
Undercarriage detail from captured DH.9 B7620. Note the fully extended radiator.



Undercarriage detail from the unidentified DH.9 showing on page 18. Note the radiator retracted into the fuselage.



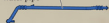
Bungee cord suspension detail from DH.9 D5649.



## 10 EXHAUST & FUSELAGE DETAILS

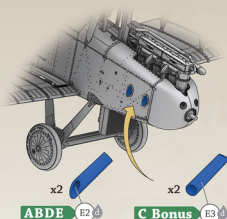
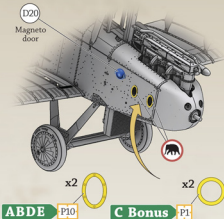
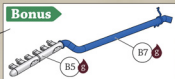
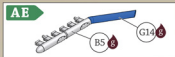
**AE** E23 d ? P

Low radiator water pipe



**BCD Bonus** E1 d ? P

High radiator water pipe



Carburettor intake pipes (E2 + P10) from the unidentified presentation DH.9 on page 7.



Carburettor intake pipes (E3 + P6) from DH.9 F1258.

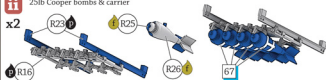
> Although almost completely washed out in this print, Alliance built DH.9 D5816 features the presentation inscription "Faridcot No.3" on the nose above the carburettor intake pipes. D5816 was from a production order for 300 DH.9 placed with the Alliance Aeroplane Co/Waring & Gillow Ltd in July 1917. Note the position of the fuselage cockade under the pilot's cockpit opening.



## 11 BOMBS

### ii 25lb Cooper bombs & carrier

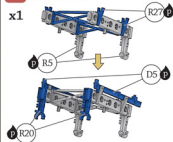
x2



25lb Cooper bombs as carried by the DH.9.

### iii Double 100-112lb HERL bombs & Carrier 112lb Twin Mk.1

x1

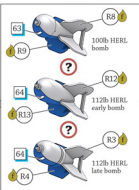
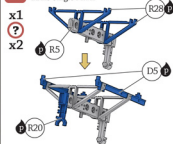


110lb HERL bomb.

### iv Single 100-112lb HERL bombs & Carrier 112lb Single Mk.II

x1

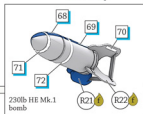
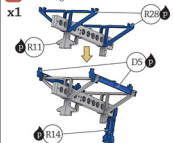
?  
x2



112lb HERL (High Explosive Royal Laboratory) bomb early.

### v Single 230lb HE Mk.1 bomb & Carrier 230lb Single Mk.1

x1



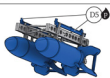
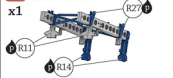
230lb HE Mk.1 bomb



Cockpit and fuselage detail from an unidentified and unarmed DH.9. Note the fuselage cockade and cockpit padding.

### vi Double 230lb HE Mk.1 bombs & Carrier 230lb Twin Mk.II

x1

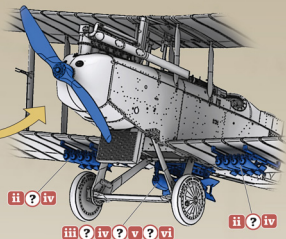


**12** PROPELLER & BOMBS continued

Propeller

B39

B5



ii ? iv

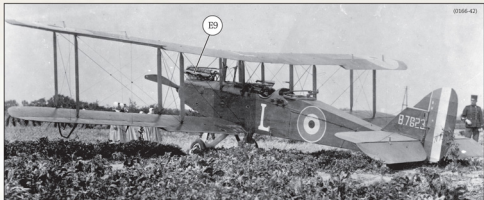
iii ? iv ? v ? vi

ii ? iv



(0166-08)

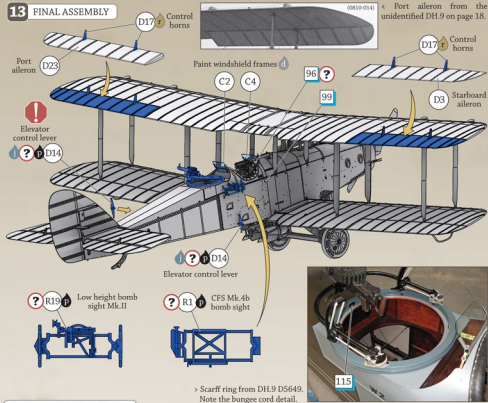
Mann built DH.9 D1651 was the 1st aircraft from an order for 100 DH.9 placed with Mann, Egerton & Co Ltd in late June 1917 and served with 44 TDS Waddington. Note the very small carburettor intake pipes and 'grey wall' tyres.



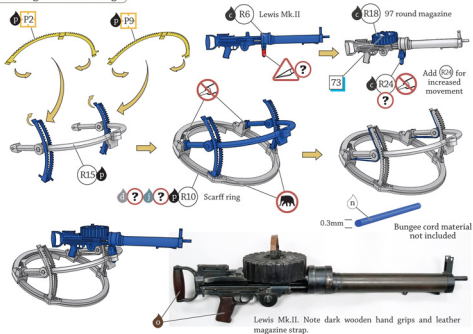
(0166-42)

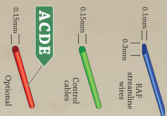
Westland built DH.9 B7623 'L' of B flight 211 Sqn was lost in action on 16 August 1918 after it was reportedly hit by Flak and the engine stopped, forcing the crew of DR Harris (USAS) and WL Bing to ditch their camera and force land in this field in neutral Holland where they were interned. B7623 is from a batch of 100 DH.9 ordered in June 1917 which were initially intended to be DH.4. Note the position of the fuselage cockade. The B flight spiral marking can be seen on the port wheel cover.

### 13 FINAL ASSEMBLY



### Lewis gun & Scarff ring

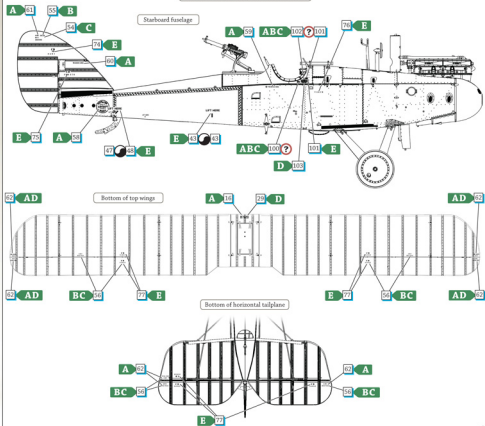






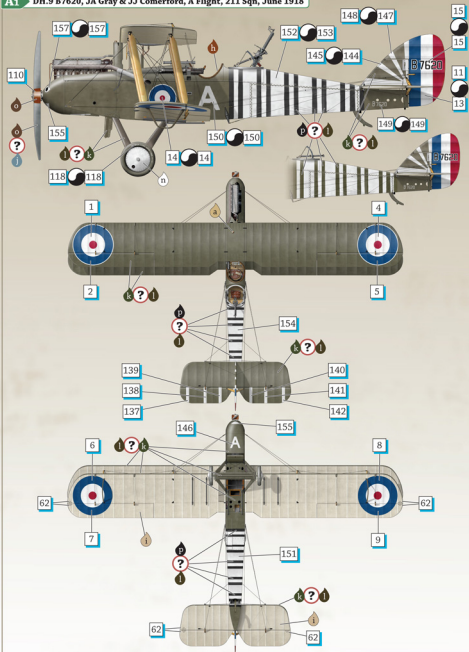
This unidentified DH.9 is fitted with a device for collecting spent Vickers ammunition and disintegrating belt links which, along with the 'colourful' nose, indicates service with a training unit. The serial number on the fin is partially obscured but this could be DH.9 B7912 which was rebuilt from salvaged parts and served at 11 TDS (Training Depot Station) Old Sarum until late October 1918 when it was crashed, slightly injuring PG Hutton.

## COMMON STENCIL MARKINGS





## A1 DH.9 B7620, JA Gray &amp; JJ Comerford, A Flight, 211 Sqn, June 1918



Westland built DH.9 B7620 was from an order placed in June 1917 for 100 aircraft, originally intended to be DH.4 but changed to DH.9. It was delivered to the RFC depot at Dover in early March 1918 and crashed later that month. After being repaired it was allocated to 211 Sqn RAF the following month. On the afternoon of 27 June 1918 JA Gray and JJ Comerford were near Bruges when they were hit by Flak and forced down in a Dutch field and were interned. Only slightly damaged, B7620 was repaired and later purchased by the Dutch as deH433. To recreate deH433 in Dutch service paint the cockades orange, apply decals [156](#) and touch up paint as shown opposite.



## Westland built DH.9 B7620 in The Netherlands



DH.9a B7620 features dark and light fuselage bands and light elevator markings. The dark bands do not appear to be a simple repair and it is our contention that these were black and white around the fuselage and solely white on the fin and elevators. Note the unusual position of the fuselage cockade.



Note the fabric wrapped and doped propeller, asbestos(?) cord wrapped around the extended exhaust manifold (114). Pareidolia assured that the distinctive nose cowling of the DH.9 was frequently painted with facial features (155 & 157).



DH.9a B7620 after being repainted by the Dutch. The rudder, fin and cockades have been overpainted with orange (C) and extra cockades have been painted under the top wing. The serial number under the horizontal tailplane and the letter 'A' on the side of the fuselage have been overpainted in an unknown colour.



The aileron balance cable appears to have been severed resulting in all 4 ailerons hanging downwards. Normally the ailerons were rigged to droop 1" (25.4mm), which equates to 0.8mm in 1/32 scale, below the trailing edge of the wings with the pilot's control column at neutral. Note the stripes on the elevators.

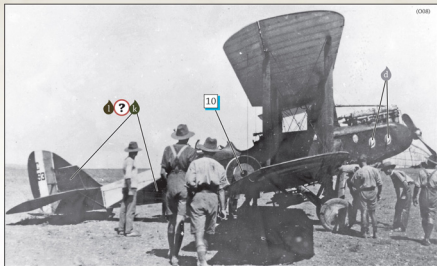


It would also appear that the CDL undersides of the wings have also been overpainted by the new owners, probably in light blue (u). The face markings have been retained as has, surprisingly, the A flight letter under the oil tank.

**B** DH.9 C6293 "3", 144 Sqn, August 1918

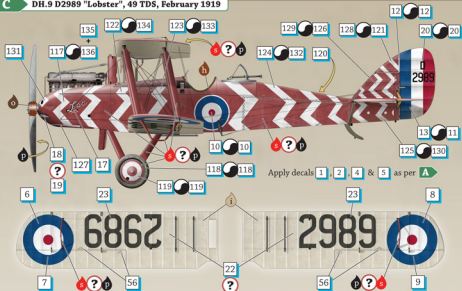


AMC built DH.9 C6293 is seen here in service with 144 Sqn in Palestine. C6293 is from an order for 300 DH.9 placed in September 1917 and was delivered to 144 Sqn in August 1918. Formed in March 1918 at Port Said, Egypt, 144 Sqn was initially equipped with obsolete BE.2e and Be.12 before being reequipped with the DH.9 in August 1918. The DH.9 of 144 Sqn saw extensive action against Turkish targets up until the Armistice with Turkey (The Armistice of Moudros) on 30 October 1918. Following the Armistice DH.9 C293 spent much of its time in Salonika with 17 Sqn before being written off in October 1919.



Australian 'Diggers' inspect DH.9 C6293. Note the single 112lb HERL bomb mounted under the fuselage **iv**, tailplane bracing struts **(H3)** & **(H4)** and style of the carburetter intake pipes.

**C** DH.9 D2989 "Lobster", 49 TDS, February 1919

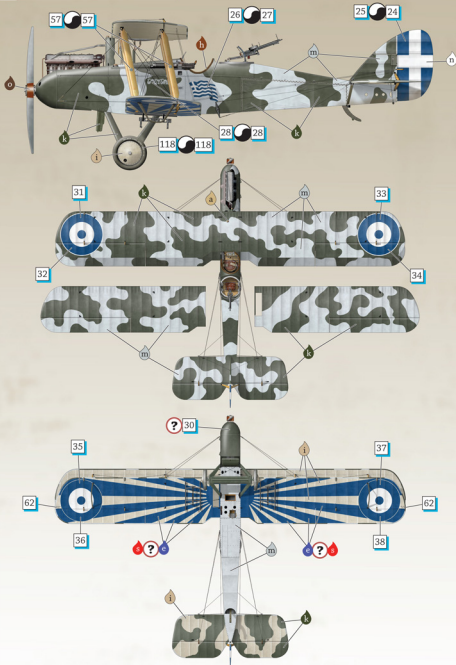


AMC built D2989 was from an order for 400 DH.9 placed in November 1917 and is seen here at 49 TDS (Training Depot Squadron) in early 1919. The overall dark colour and name 'Lobster' on the nose makes us believe that D2989 was finished overall in red with white 'zig-zag' bands. The struts and possibly the top surfaces of the wings and tailplane also appear to have been painted red. A mouth and 'square eyes' have been painted on the nose cowling and the serial number has been repeated under the bottom wings. In this photo D2989 is armed with a Vickers machine gun but in at least one other photo it is clearly unarmed.



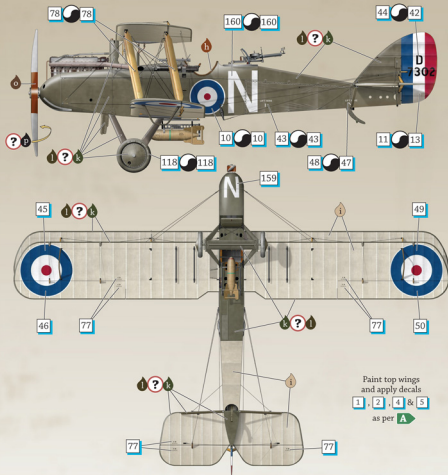
< Short Bros built DH.9 D2781 'M' of B flight 211 Sqn is seen here after it landed in The Netherlands after being hit by Anti-Aircraft fire over Zeebrugge on 25 July 1918. The pilot, RS Gude (or Good), flew directly to neutral Holland to seek medical attention for his mortally wounded gunner HM Partridge and it is believed that the dramatic fuselage damage shown here was mainly inflicted while trying to extricate Partridge. Although rushed immediately to hospital Partridge died of his wounds and Gude was interned by the Dutch authorities. Note the B flight spiral marking on the wheel cover.

**D** DH.9 D7211 "Spetsai", HNAS, 1919



Westland built D7211 was from an order for 100 DH.9 placed in January 1918. It was initially delivered to the RAF in Mudros Greece in May 1918 but does not appear to have been assigned to a Squadron. By early 1919 it had been transferred to the Greek Government, HNAS (Hellenic Naval Air Service) and may have seen some service in the 'Asia Minor Campaign'. DH.9 D7211 'Spetsai' was reportedly the lead aircraft in a victory celebration flyover of Constantinople and displayed the colours of the Greek flag on its undersides, which has driven our choice of colour in the illustration above.

**E** DH.9 D7302 "N", RSS Ingram & AW Wyncoll, C Flight, 108 Sqn August 1918



Berwick built D7302 "N" was from an order for 100 DH.9 placed in November 1917 which was cancelled after the 1st 30 aircraft were completed. It was delivered to the newly formed 108 Sqn in June-July 1918. On 18 August 1918 RSS Ingram and AW Wyncoll were on a bombing mission in D7302 when they were attacked by German fighters and hit by Flak and Ingram was forced to land on the beach at Oostend where they were both made POW.



DH.9 D7302 'N' on the beach at Oostend. Note the C flight marking 'N' repeated under the nose, white outlined bottom wing cockades and how the doped fuselage fabric appears much darker than the painted ply areas.



DH.9 D7302 'N' being manhandled off the beach at Oostend by its German captors. Note the bomb sight on the port side of the fuselage.

Alliance built DH.9 H5636 was an Imperial gift aircraft presented to the New Zealand Government in 1921. It was converted to carry passengers by the Canterbury (NZ) Aviation Co Ltd as G-NZAD before being returned to the government in 1923. In early 1924 it was converted back to the 'near original' condition seen here and given the NZPAF (New Zealand Permanent Air Force) serial number 5636 and served until the 1930s when it was scrapped.

**Bonus**

Paint wings and apply decals 1, 2, 4, 5, 45, 46, 49 & 50 as per **A** & **E**

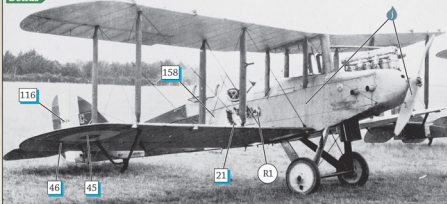
(0375-060)



Port rear view of NZPAF DH.9 5636. Note the extended ply rear fuselage, exhaust manifold (B7), extra magneto access hatch (D20), cockpit (21), Vickers gun mount fairing (B7), lack of Aldis sight (115) and location of the serial numbers (116 & 158).

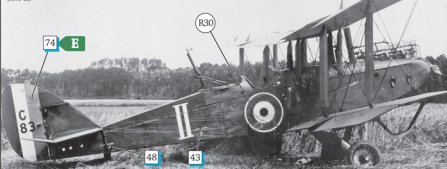
**Bonus**

(0375-059)

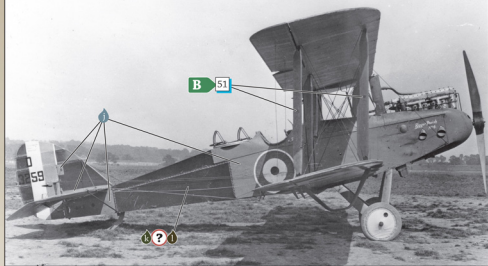


Starboard front view of NZPAF DH.9 5636. Note the extended ply rear fuselage, bottom wing cockades (45, 46, 49) & (50), bomb sight (R1), height of the radiator pipe (B15) and style of carburettor intake pipes.

(0175-18)



Berwick built DH.9 C2183 'I' of 207 Sqn was captured on 11 July 1918 with RA Arnott and HR Whitehead being made POW. Note the position of the fuselage cockade, various stencils and the bomb release toggle (R30) on the side of the fuselage.



AMC built DH.9 D3259 was from a production order for 400 aircraft placed in November 1917. D3259 was the presentation aircraft "Biggar Parish No.4" and served with 211 Sqn from late August 1918 until it crash landed in strong winds on 7 October 1918, the crew of EJ Stevenson and Lt. Wretham we both unhurt.



#### 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 WW1 aircraft has encouraged further interest in the aircraft of the 'Golden Age' of the 20's and 30's which have particularly beautiful forms.

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.

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 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](mailto:richard@wingnutwings.com)



#### Profile Art by Ronny Bar

Ronny Bar developed a keen interest in airplanes from an early age, living close at the El Palomar Air Force Base in Buenos Aires. He first flew in the back seat of a T-34 Mentor trainer at the age of ten, and was soon drawing airplanes and building models: Spitfires and Messerschmitt first... Camels and Fokkers later.

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

Now retired from the R'n'R scene, his interest returned to his early passion: Aviation Artwork. Visiting the WW1 aircraft collection at Hendon focused his already growing interest for that historic period. His artwork is regularly appearing in journals and publications like *Windssock Worldwide*, *Windssock Datafiles*, *Cross & Cockade* and *Over the Front*.

Visit Ronny's website at: [www.ronnybarprofiles.com](http://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](http://www.anderson-art.com).





32035	1/32 AMC DH.9	Qty
0132007A	A parts	1
0132035B	B parts	1
0132007C	C parts	1
0132035D	D parts	2
132E0020	E parts Puma Engine	1
0132035F	F parts	1
0132035G	G parts	1
0132035H	H parts	1
0132035P	Photo-etched metal parts	1
132R0002	R parts RFC Armaments	2
7132035	Instructions	1
9132035a	Decals	1
9132035b	Decals	1

If you have any damaged or missing parts please contact [help@wingnutwings.com](mailto:help@wingnutwings.com) for assistance.



32028 - 1/32 AMC DH.2



32004 - 1/32 Bristol Fighter



32007 - 1/32 DH.9a 'Ninak'

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