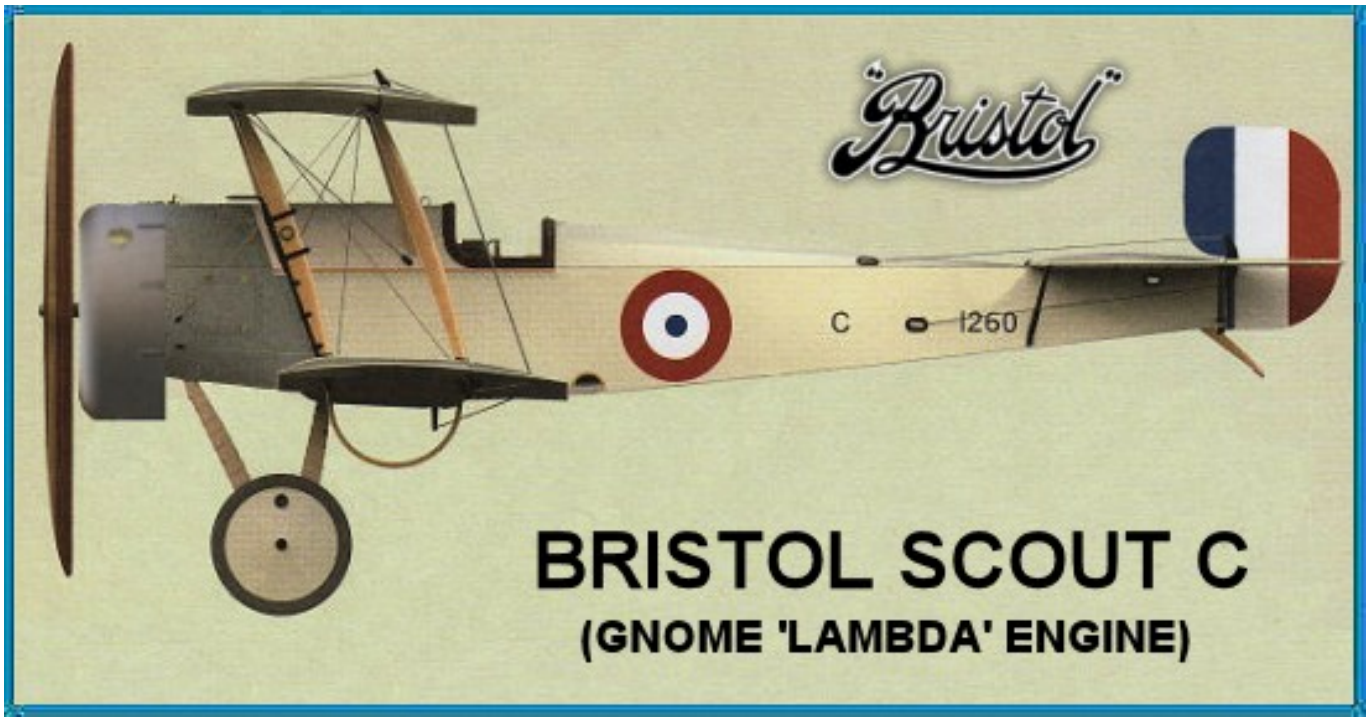

World War One Aircraft Models

I have always held a fascination with early military aircraft. After serving for 27 years in the Royal Air Force, I became a Military Aerospace Technical Author. As most modelers, I got involved in the world of construction kits at an early age, but stopped for most of my service career and for some years afterwards.

I started modeling again a few years ago and now enjoy the challenge of building aircraft of World War One. Since posting photographs of my completed models online, various modelers have asked if I would create 'build logs' for my future builds, which is what I now do for each build.

I don't consider myself a 'master' of this craft, but hope to be able to pass on what I have learned. As such, here is my build log, which covers the 'Copper State Models' 1:32 scale model of the Bristol Scout C.

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Completed: July 2023

CONTENTS

INTRODUCTION

Before I start with the build log, I'd like to show how I've set up my work area. I prefer to keep the work area as clear as I can (I've lost too many small items in the past). I think it's important to have the tools etc you need ready to hand and other, non-essential stuff tucked out of the way until needed. I'm lucky in that I have my 'man cave', which is sorted into a modelling area, airbrush spray booth in addition to my work station PC, games PC and games console.

AFTER MARKET

AFTER MARKET

Figures

‘Copper State Models’ RNAS pilot in fur coat (F32-051),
‘Copper State Models’ RNAS mechanic with can (F32-054).

Propeller

‘Proper Plane’ wood laminated ’Bristol’ propeller.

Rigging accessories (as required)

‘Steelon’ or ‘Stroft GTM’ 0.08 and 0.12mm diameter mono-filament,
‘Proper Plane’ 1/32nd scale 3D printed resin turnbuckles (RD-005),
‘Gaspatch’ 1/48th scale metal turnbuckles (Type B, C and Anchor Points),
‘Albion Alloy’s’ 0.4mm and 0.5mm Brass tube and rod.

Resin

‘Gaspatch’ 1:32nd scale Wicker seat (22-32249),
’Archer’ WW1 resin stitching (AR88004).

Weapons

‘Gaspatch’ 1:32nd scale Lewis Mk.1 half stripped heatsinks (13-32052).

Decals

‘Aviattic’ Bleached CDL (clear backed) (ATT32044),
‘Xtradecal’ parallel stripes black (XPS1),
‘Xtradecal’ RAF letters and numbers set (X32021).

Sundries (as required)

Paints (‘Tamiya’ Acrylic, Humbrol Acrylic, ‘Mr. Metal Colour’, ‘AK Interactive’ Primer and micro-filler (Grey AK758, White AK759) and figure paints, Kerosene AK-2039, Oil AK-2019 AK-2033, ‘Alclad II’ Lacquers, ‘Alclad’ Aqua Gloss 600 clear coat, ‘Mr. Colour’ Levelling Thinners, PVA Adhesive (e.g. ‘MicroScale’ Kristal Klear, MicroSet and MicroSol), ‘VMS Fleky’ CA adhesive (Standard and Thin), UHU’ White Tack, ‘White Spirits’, ‘De-Lux Materials’ Perfect Plastic Putty, ‘Flory Models’ sanding/polishing sticks, ‘Mr. Surfacer 500, 1000,1200’, ’Plastruct’ styrene rod, ‘Tamiya’ liquid cement, ‘PlusModel’ lead wire, ‘ANYZ’ 0.5mm black braided line (AN011), ‘Blacken-It’ solution, ‘MFH’ black 0.4mm flexible tube (P-961), ‘Revell’ Contacta Professional cement (39604), ‘Citadel’ paints range, ‘MDP clear backed decal paper for inkjet printer, ‘Krylon’ Acryli-Quik sealer, ‘Windsor & Newton’ Griffin Alkyd paints, ‘Blacken-It’ solution.

Weathering mediums (as required)
‘Flory’ Clay washes and Pigments, ‘AK Interactive’ washes,
‘Tamiya’ Weathering Master (Set C, D and E).

Display Base

Etched Plaque (name plate), ‘Inperspective’ custom made Acrylic base and cover,
‘Polak’ Wild Meadow (Variation F) grass mat (4706).

THE AIRCRAFT

THE AIRCRAFT

This model represents Bristol Scout C, Serial number 1260 of No.5 Wing (RNAS), operating from Dover as part of Home Defence in 1916.

References:

‘Copper State Models’ instruction manual.
‘Windsock’ date file No.44 - Bristol Scouts (J.M. Bruce).
‘Warpaint Series No.128’ - Bristol Scout (Matthew Willis).
On-line resources (various).

General:

NOTE: *The following text is based on descriptive text from the ‘Copper State Models’ instruction manual and information in the ‘Windsock’ data file No.44 and online resources.*

The Bristol Scout was designed in 1913 by Frank Barnwell and the company’s chief test pilot, Harry Busteed and the first flight of the prototype took place on 23rd February 1914 with Busteed at the controls. Two subsequent aircraft, completed shortly after the outbreak of the First World War in August 1914, were requisitioned by the Royal Flying Corps and allocated to No.3 and 5 Squadrons for evaluation. Powered by a Le Rhone rotary engine generating 80 hp the Scout’s performance impressed the War Office and in November 1914 an order was placed for 36 machines.
Initial trials to provide RFC aircraft with guns used the Scout as a test-bed. One early attempt involved strapping a rifle to each side of the fuselage with both aiming outwards to clear the arc of the propeller. This quickly gave way to a Lewis 0.303 machine gun attached to the port side of the fuselage. No Royal Flying Corps (RFC) or Royal Naval Air Service (RNAS) squadron was equipped solely with the Scout, although No.2 Wing (RNAS) operated around 6 aircraft at any one time in the Eastern Mediterranean theatre. Instead it was deployed as an escort fighter to larger 2-man aircraft in which role it saw action against enemy fighters, bombers and even Zeppelins. A small number of Bristol Scouts were sent to the Middle East (Egypt - training at Abu Qir, Macedonia No.47 squadron, Mesopotamia No.30 and 63 squadrons and Palestine No.14, 67, 111 squadrons and No.1 squadron AFC) in 1916 with the last known Bristol Scout in military service being the former RNAS Scout D No. 8978 in Australia, which was based at Point Cook, near Melbourne, as late as October 1926.
The Scout soon became obsolete as far more capable aircraft came off the production line, such as the pusher DH2 fighter. Eventually it was withdrawn from front line service in the summer of 1916. Thereafter, some Scouts were used by training units with others being retained by senior officers as personal transport.
Despite its short service on the front line, the Bristol Scout saw service with 27 RFC Squadrons and was also flown by the RNAS, the Australian Flying Corps (AFC) and the Hellenic Navy. A total of 375 machines were built. The only airworthy Scout flying today is Serial No.1264, built and operated by David Bremner and his team. It was built over a fourteen year period and included parts from the aircraft flown by his grandfather, Flt. Sub. Lt. F.D.H. ’Bunnie’ Bremner, from the island of Thassos, Greece in 1916.

The first version of the Scout was the Scout type A, which was followed by two Scout type B aircraft, being identical to the modified Scout A type but with the more powerful 80 hp Le Rhóne rotary engine. These two aircraft were sent to the RFC for operational evaluation. These aircraft had some differences, for example half-hoop-style underwing skids and a widened rudder surface. The Scout type C aircraft was similar to the previous Scout type B. It was first ordered by the British government in a 12 aircraft production batch for the RFC and in a 24 aircraft production batch for RNAS.

Later Scout type C production batches, comprising 50 aircraft built for the RNAS and 75 for the RFC, had a modified cowl, rudder and other details.
The last and the largest production batch of 210 aircraft was the Scout type D, of which 80 were delivered to the RNAS and the other 130 to the RFC. The Scouts type D series had a larger rudder and a different shaped engine cowl which had a larger front opening for engine cooling. The more powerful, nine cylinder 100 hp Gnóme Monosoupape rotary engine was used to improve its performance.

Scout type A:

The design of the Bristol Scout was as an equal-span single-bay biplane with staggered parallel-chord wings with raked wingtips and ailerons fitted to the upper and lower wings, which were rigged with about half a degree of dihedral, making them look almost straight when viewed from the front. The wing section was one designed by Coanda which had been used for the wings of the Bristol Coanda Biplanes. The rectangular-section fuselage was an orthodox wire-braced wooden structure constructed from ash and spruce, with the forward section covered with Aluminium sheeting and the rear section fabric covered. The rotary engine fitted was the 80 hp (60 kW) Gnome Lambda rotary engine enclosed in a cowl that had no open frontal area, although the bottom was cut away to allow cooling air to get to the engine. It had a rectangular balanced rudder with no fixed fin and split elevators attached to a non-lifting horizontal stabilizer. The fixed horizontal tail surfaces were outlined in steel tube with wooden ribs and the elevators constructed entirely of steel tube.
After flying at Larkhill the prototype, later referred to as the Scout type A, was returned to the factory at Filton and fitted with larger wings, increasing the chord by six inches (15 cm) and the span from 22 ft (6.71 m) to 24 ft 7 in (7.49 m). These were rigged with an increased dihedral of 1+¾°. Other changes included a larger rudder, a new open-fronted cowling with six external stiffening ribs distributed in symmetrically uneven angles around the cowl's sides (especially when viewed from the front) and fabric panel-covered wheels. It was evaluated on the 14th of May 1914 at Farnborough and when flown by Busteed, the aircraft achieved an airspeed of 97.5 mph (157 km/h), with a stalling speed of 40 mph (64 km/h). As two Scout type B aircraft were being constructed, the prototype Scout type A was eventually sold to Lord Carbery for £400 without its engine. He had a 80 hp Le Rhône 9C nine-cylinder rotary engine fitted and flew this aircraft in several air races before it was lost after ditching in the sea during the London to Paris race.

Scout type B:

Numbers 229 and 230, later designated the Scout type B, were identical to the modified Scout A, except for having half-hoop-style underwing skids and what appear to have been six stiffening ribs positioned around the engine cowl's exterior circumferential surface, which was also made with a larger circular front opening for engine cooling when compared to the Scout A. Also an enlarged rudder. Completed shortly after the outbreak of war in August 1914, they were requisitioned by the War Office and given RFC serial numbers 644 and 648. Serial 648 was allocated to No.3 Squadron (RFC) and 644 to No.5 Squadron (RFC) for evaluation. Number 644 was damaged beyond repair on 12 November 1914 in a crash landing. Serial 648 subsequently served with No.4 and No.8 squadrons before being struck off charge on the 4th of October 1915.

Scout type C:

Impressed by the performance of the Scout type B aircraft, the War Office ordered twelve examples on the 5th of November and the Admiralty ordered a further 24 on 7th of November. The production aircraft, later called the Scout type C, differed from their predecessors mainly in constructional detail, although the cowling was replaced by one with a small frontal opening and no stiffening ribs, the top decking in front of the cockpit had a deeper curve and the Aluminium covering of the fuselage sides extended only as far as the forward centre-section struts, aft of which the decking was plywood.

Scout type D:

The last and most numerous production version, the Scout type D, was the result of a series of further improvements to the Scout type C design. One of the earliest changes appeared on 17 of the 75 RNAS Scout type C aircraft, which saw an increase in the wing dihedral angle from 1+¾° to 3° and other aircraft in the 75 aircraft RNAS production run introduced a larger-span set of horizontal tail surfaces and a broadened-chord rudder, shorter-span ailerons and a large front opening for the cowl, much like that of Scout type B, but made without the external stiffening ribs.

The newer cowl was sometimes modified with a blister on the starboard lower side for more efficient exhaust-gas scavenging from the engine, as the aircraft were intended to have fitted the more powerful, nine-cylinder 100 hp Gnôme Monosoupape B2 rotary engine to improve the performance of the Scout type D. In total 210 Scout type D aircraft were built with 80 of these being ordered by the RNAS and the other 130 being ordered by the RFC.

Engine types:

The Bristol Scouts were fitted with various rotary engines for operational flying or for engine trials. Engines that were fitted included the 80 hp Gnome Lambda, Le Rhône and Clerget, the 100 hp Monosoupape-Gnome, and the 110 hp Clerget or Le Rhône rotaries.

Scout type C - **typical** specifications:

Wing span - 24’ 7” (7.49m)

Length 20’ 8” (6.30m)

Height - 8’ 6” (2.59m)

Wing area - 198.00‘ (18.4m$^{2)}$

Empty weight - 789 lb (358kg)

Loaded weight - 1,195 lb (542kg)

Speed - 92.7 mph (149.2kph)

Rate of climb - 21m 20sec to 10,0000’ (3,048m)

Service ceiling - 15,200’ (4,724m)

Endurance - 2.5 hr

Weapon - single Lewis .303 machine gun

Engine - Gnome Lambda (80hp) rotary

Notable pilots of the Scout:

Captain Lanoe Hawker:

A pilot with No.6 Squadron (RFC), Hawker shot down two German aircraft and forced down a third on 25th July 1915 over Passchendaele and Zillebeke. For this action he was awarded the Victoria Cross. Captain Hawker also enjoyed the distinction of becoming the first British fighter ‘ace’.

Hawker flew flew Scout type C , Serial No.1611, which with help from an air mechanic Ernest Elton devised a mount for attaching a Lewis gun to the left side of the fuselage during June of 1915. It was whilst testing his invention in combat on the 25th of July that he was awarded the Victoria Cross, the first awarded to a pilot for aerial combat. Eventually Hawker was shot down and killed in one of the longest dog fights of the war.

On the 23rd of November 1916 and flying a DH2 pusher fighter, he engaged in combat with Manfred von Richthofen flying an Albatros fighter. After a 30 minute dog fight, he was shot in the head and was killed. The Germans buried him next to his downed aircraft near Bapaume, but his grave was lost and he is now commemorated on the Flying Services Memorial at Arras.

Charles Gordon Bell:

Charles Gordon Bell was a well known pre-war aviator. He was an experienced and aggressive pilot when he joined the RFC in 1914. Bell was posted to No.10 Squadron (RFC) and claimed 5 victories during 1915, becoming the highest scoring Bristol Scout pilot of the war. Eventually ill health forced his return to England. He was killed during a test flight in 1918.

Albert Ball:

Albert Ball was the first British ace idolized by the public. In October 1915 he was granted the Royal Aero Club Certificate and immediately requested to be transferred to the RRFC. In February 1916 he joined No.11 Squadron (RFC) at Marieux in France, flying a Bristol Scout. There he scored his first aerial victory on the 16th of May when he drove down an Albatros C. He Subsequently moved on to fly Nieuport 16, 17 and SE5 fighters. He shot down 43 enemy planes and one balloon. On the evening of the 7th of May 1917, near Douai, Albert Ball was in combat and was last seen by his fellow pilots pursuing an Albatros fighter into clouds. Ball's aircraft was last seen diving inverted into the ground. Albert Ball was only 20-years-old at the time of his death, but was awarded the Victoria Cross. There is debate as to whether Ball was actually shot down or became disorientated in cloud, but his death was credited to Lothar von Richthofen.

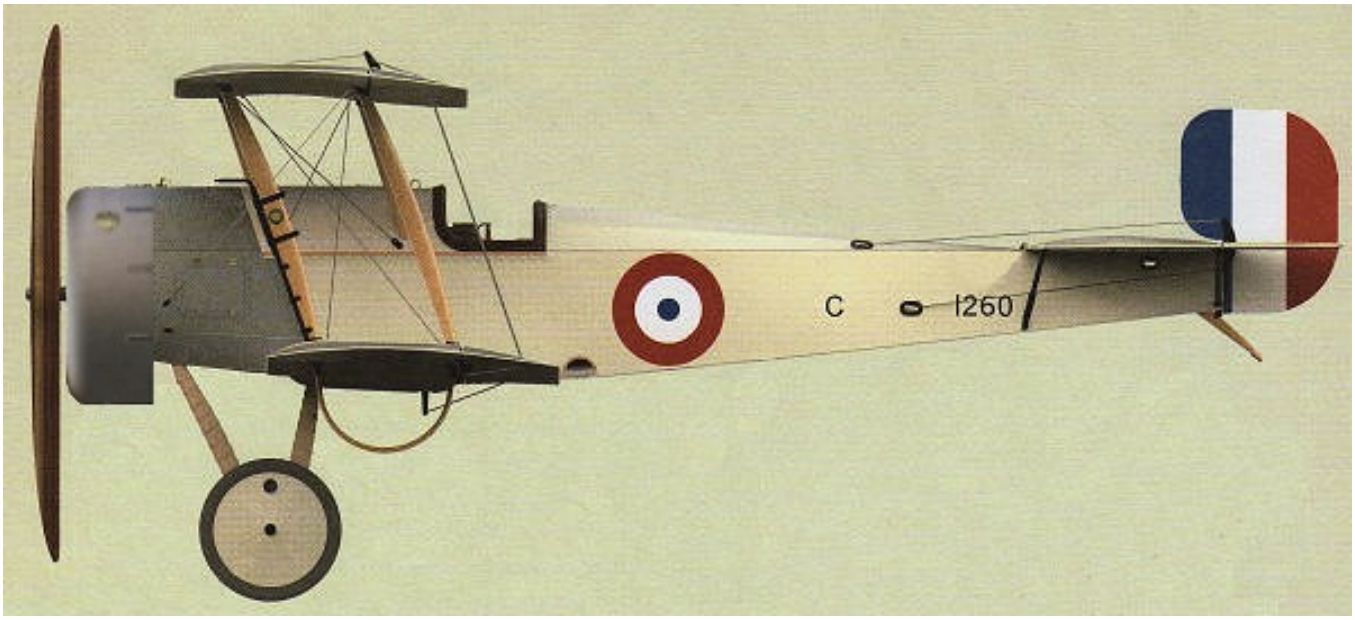
Bristol Scout C, Serial number 1260:

Bristol Scout C, Serial number 1260 was one of a batch of 24 aircraft built under contract CP 67209/14 (serials 1243 to 1266). This aircraft was delivered to Eastchurch on the 4th of July 1915 and was officially accepted a week later. It was at St Pol for a few days before joining No.5 Wing at Dover on the 13th of August 1915 for Home Defence duties. On the 24th of January 1916 and the 9th of February, it was flown by Flt. Sub. Lt. R.F.S Leslie to defend against enemy seaplanes that were attacking Folkstone, Dover, Broadstairs and Ramsgate.

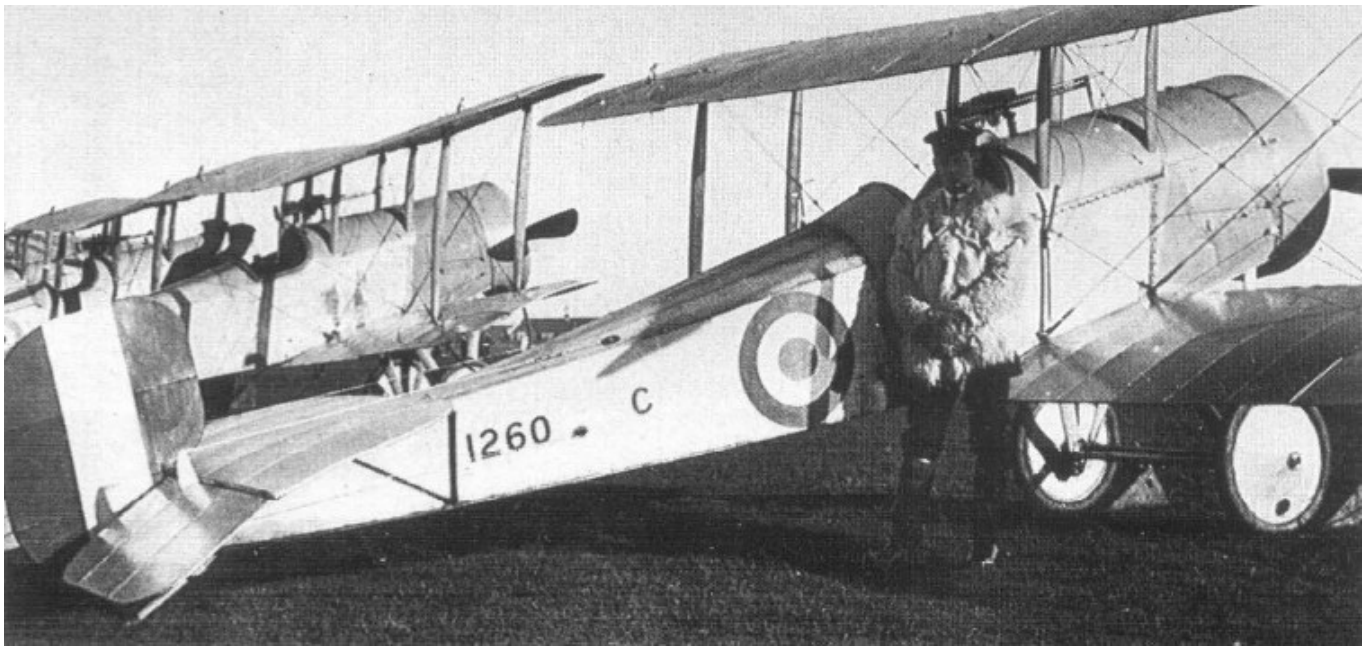
The aircraft required repairs after it overturned on the 29th of June 1916, but was damaged beyond repair on the 10th of August and written off on the 4th of September 1916. The Bristol Scouts had various armament fitted, which included Lewis machine guns mounted obliquely on one or both sides of the fuselage or forward facing on the top forward fuselage decking or forward facing on the upper wing. At some period, 1260 had a Lewis machine gun fitted on the top forward fuselage decking (see the following photograph). It seems strange therefore that this aircraft was not fitted with any form of synchronising mechanism to stop fired rounds hitting the rotating propeller. Evidence of this can be seen on similar period Scouts with this armament fitted, by wrappings around the propeller blades that were aligned with the muzzle of the machine gun.

The engines fitted to the Scout aircraft, other than the initial Gnome Lambda (80hp) only started to be trial fitted from March 1916. The particular aircraft being modelled (1260) was flying operationally with No.5 Wing (RNAS) during 1916 and the following photograph shows that there were no air intake pipes for the carburetor protruding from the engine side access panel. Therefore it's probable 1260 was fitted with Gnome Lambda (80hp) engine, although may have been retro-fitted later in 1916 with the alternative Le Rhone 9c (80hp) engine. At the start of the war the RFC and RNAS aircraft had Union flag markings painted on the fuselage sides and on the undersides of the wings. However, the Union flag markings led to some of the aircraft being mistaken for German aircraft. On the 11th of December 1914 the RFC Headquarters in the field decreed that roundels should be applied on RFC aircraft, based on the French cocarde (roundel), but with the coloured rings reversed. These markings were applied to the wings, fuselage and the rudder. The RNAS however marked their aircraft, from October 1914, with roundels that had an outer ring of red (with a thin white outer), a white inner ring and a blue centre. Eventually in June 1915, it was decided to standardise on the RFC roundel for all British military aircraft, including those of the RNAS.

As Scout 1260 was flying operationally with No.5 Wing (RNAS) from August 1915 until September 1916, it should theoretically have had the later RFC roundels.
However, markings took time to be applied after being changed and also, there was great rivalry between the RNAS and the RFC. Therefore it's likely that the RNAS roundel markings were still on Scout 1260 when it was with No.5 Wing at Dover.
This appears to be confirmed when looking at the photograph below. When comparing the shades of colour between the rudder stripes and the fuselage roundel, the red colours appear darker than the blue. This indicates that the trailing rudder strip and roundel outer ring are darker (red) and the leading rudder stripe and centre of the roundel are lighter (blue).



Scout 1260 with earlier fuselage mounted Lewis machine gun
and full upper wing centre section



The following photograph shows possibly the crash of the 29th of June 1916. Note that 1260 had, at this time, an over wing mounted Lewis machine gun.

Scout 1260 with later wing mounted Lewis machine gun and cutout upper wing centre section

This is the weapon configuration that will represented on this model.

PART 1
MODEL
KIT

PART 1 - MODEL KIT

('Copper State Models' - Kit No:32007)

'Copper State Models' (CSM) have become the modern day 'Wingnut Wings' as far as subject matter and quality are concerned and this kit of the Bristol Scout C is no exception.

The kit is supplied as six styrene (plastic' gates containing the model parts), including the Gnome Lambda (80hp) rotary engine and possibly only in pre-ordered kits, the optional Le Rhone 9C engine for scheme Serial No.1264. Also supplied are a clear sprue gate for the transparent parts and a photo-etch sheet for the seat belts and other minor parts. Optional parts include are for two different engine cowls, two Lewis machine guns and mountings, a bomb rack with for bombs and two different rear fuselage tops. All of the parts are flash free and with no obvious surface anomalies.

The kit instruction manual is presented in the usual CSM high standard and reminiscent of the quality of the 'Wingnut Wings' instruction manuals. The manual contains a fly sheet written by David Bremner, the owner and pilot of the only airworthy Bristol Scout existing, serial No.1264, built over fourteen years and started from when he found three original parts from Scout 1264, which was flown by his grandfather during WW1. David also wrote the introduction page in the manual.

The decal sheet supplied covers four schemes, namely:

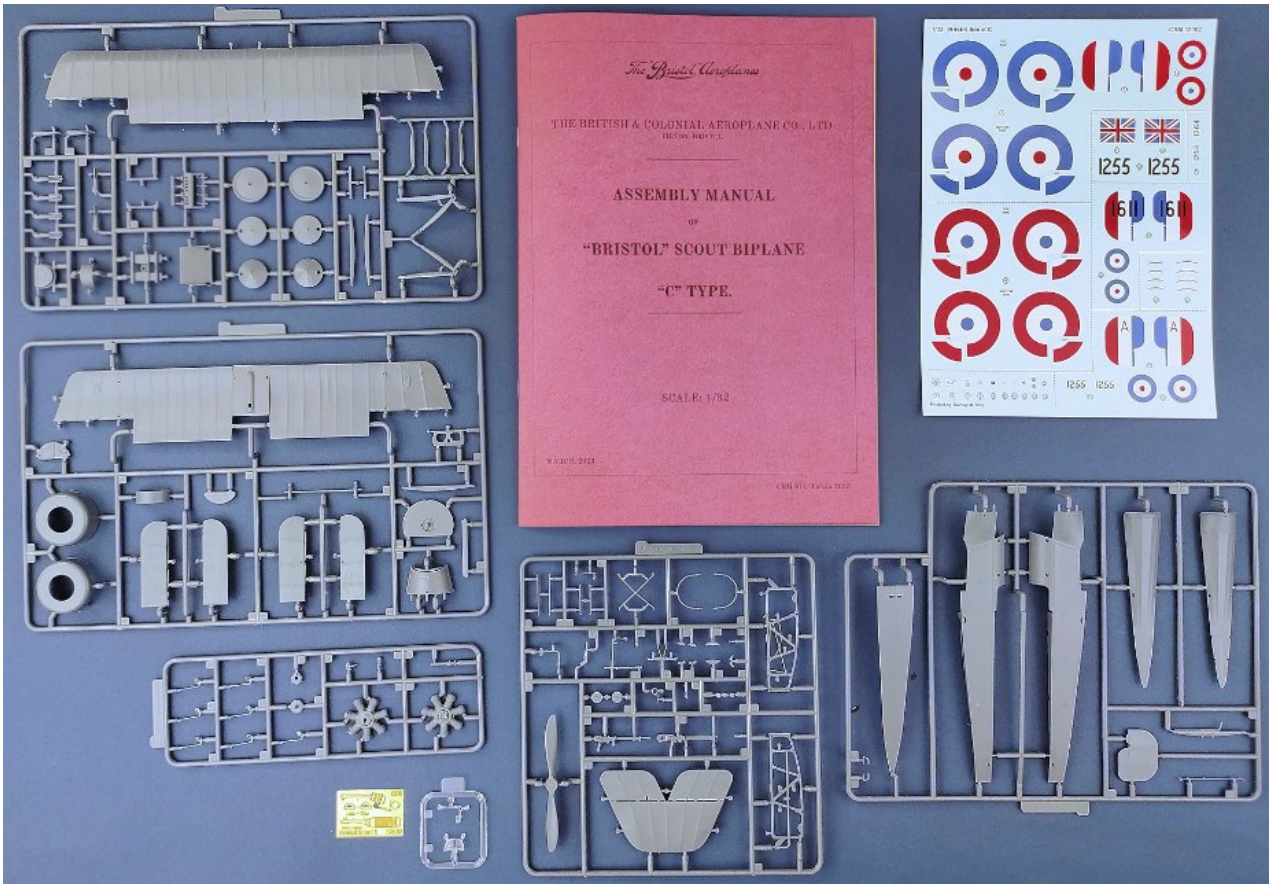
Serial No.1264 (RNAS) flown by F.D.H. Bremner from the island of Thassos, Greece.

Serial No.1611 (RFC) flown by Victoria Cross awarded Capt. Lanoe Hawker.

Serial No.1255 (RNAS) when used for ship borne launches from HMS Vindex.

Serial No.1255 (RNAS) when flown with No.4 Wing at Eastchurch.

As a bonus **pre-ordered** kits also have a patch of Clear Doped Linen (CDL) from when Scout 1264 was recovered in 2014, a poster of the kit box art.



When researching a particular aircraft, it's quite often found that some changes to the model may be required. These can be modifications to enhance the model to better represent the particular aircraft. Also some squadron aircraft had 'in-the-field' modifications made to improve the aircrafts operational capability. The following are obvious changes that are needed or preferred to better reflect the particular aircraft being modelled. If other changes are found during the build of this model, they will be covered in the relevant chapter.

Decals:

The decal sheet provided with the kit does not include the serial number C 1260 required for this particular aircraft. However, the serial number C 1264 can be reproduced using the 'Xtradecal' RAF letters and numbers set (X72157).

Machine gun:

The kit supplied Lewis machine guns and their mountings are intended for fuselage side mounting. However, at different times, 1260 had its Lewis machine gun mounted either on the top of the fuselage decking panel, forward from the cockpit or on the centre section of the upper wing. Therefore either location is valid for the model of 1260. I've chosen an over wing mounting for this model

Propeller:

The kit supplied propeller appears to be a type manufactured by Bristol and is good quality. However, I prefer to replace kit supplied propellers, where possible, by hand made wood laminated propellers made by Alexey Belov of 'Proper Plane' in the Ukraine.

Links:

Copper State Models (URL)

https://www.copperstatemodels.com/page/store/WlyliwiW1wiNIwiXSJd

Proper Plane (URL)

https://properplane.com

PART 2
WOOD EFFECTS

PART 2 - WOOD EFFECTS

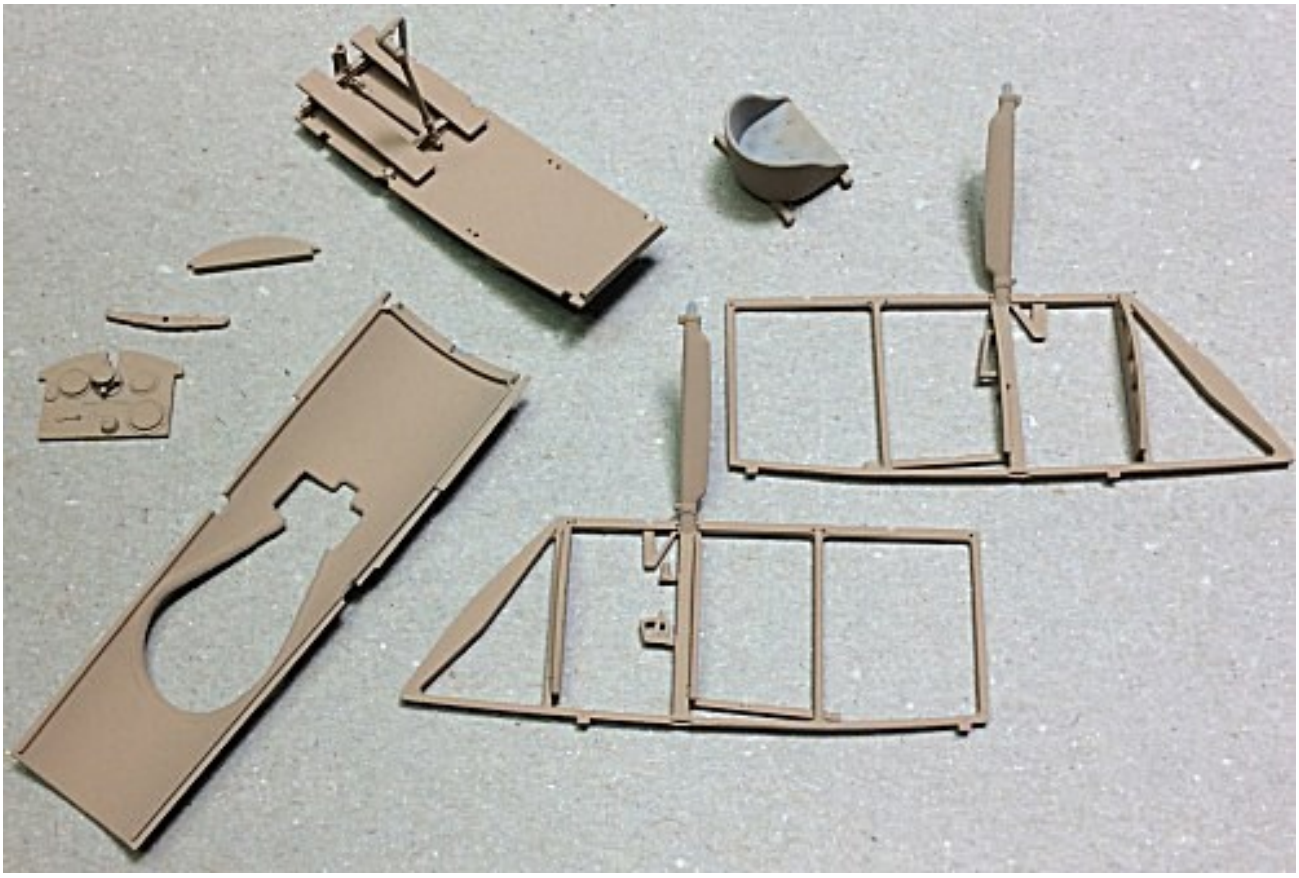
General:

Parts of the model that are supposed to be made of wood can prove to be a challenge to replicate a wood finish to the part. Some after market companies produce accurate wood decals, which can be used to cover larger areas, such as cockpit decking and fuselage panels. However, decals can't easily be used to create realistic wood finish to smaller items or parts that don't lend themselves to having decals applied. To do this requires brush painting, using such as acrylic or oil paints, which can be enhanced with various washes or filters.
The first thing to do is to ensure the model parts are cleaned, normally with warm water with washing up fluid and something like an old tooth brush. Once cleaned and thoroughly dried, the primer coat can be applied. I use 'AK Interactive' Grey (AK758) or White (AK759) acrylic primer. Once the primer is dry, you can start applying the wood effect to the applicable parts, such the cockpit framework, decking, seat supports, rudder bar, instrument panel and of course, the wing struts and propeller. With practice, this method can also be used on larger areas, such as fuselage panels.

Preparation:

To start, apply a suitable base colour. For most painting I use an airbrush and only resort to brush painting when dealing with small items, when I add a few drops of 'Mr. Colour' Levelling Thinner', which aids brush painting. For most wood effect, I use 'Tamiya' Wooden Deck Tan (XF78) or Dark Yellow (XF60), suitably thinned with 'Tamiya' Thinners (X20A). Allow this base coat to fully dry (if you can't smell the paint, then it's dry).

Example of base coat using 'Tamiya' Wooden Deck Tan (XF78)



Wood effect - Method 1:

DecoArt Crafters Acrylic' paints:

For the next step I use 'DecoArt Crafters Acrylic' paints, either Burnt Umber or Burnt Sienna. These are similar to standard acrylic oil paints, but are water based instead of oil based. This paint is not as thick as oil based paint and is more creamy, so can be brushed and controlled more easily. Also, as it is water based, it's easy to clean your brushes, and if really necessary, can be thinned slightly with water. In addition, the paints dry as quickly as normal acrylic paints, avoiding the disadvantage of using true oil paints, which can take days to fully dry.

Place a small amount of the oil paint onto a non-absorbent surface and using a suitable oil paint brush (I use a slightly curved brush), wipe a small amount of the paint onto the brush. For larger areas, such as decking or panels etc I use a small piece of fine sponge to apply the paint.

Apply the paint to the applicable item, using light strokes and in the required direction. Apply the paint along struts and across instrument panels and other smaller items. This gives variation to the wood effect and for the wing struts, is correct for the direction of the wood grain. If you apply too much paint, just brush or sponge it off immediately before it dries. Although the paint is water based, don't try to thin any applied paint with water as it will lift the paint, which builds up into clumps. If required, a second light coat can be applied. Always wait until a first coat has fully dried before applying a second coat, otherwise the first coat will 'drag' and lift from the surface.

Once painting is complete, clean the brush in water.

Below is an example of the Burnt Umber oil paint applied to a cockpit side frame.

Wood effect - Method 2:

Windsor & Newton' Griffin (Alkyd) oil paints:

NOTE: *The wood effects can also be achieved using 'Windsor & Newton' Griffin (Alkyd) paints.*

Mask off the area as required.

NOTE: *When airbrushing 'Tamiya' acrylic paints, I thin the paints using 'Mr. Colour' Self-Levelling Thinners (400), which is commonly referred to as 'unicorn tears' or just 'MLT'.*

Airbrush the areas with 'Tamiya' Dark Yellow (XF60) or similar.

Brush a covering coat of the 'Windsor & Newton' Griffin Alkyd paint , such as Burnt Sienna**,** over the areas.

Leave the oil paint to settle for about ten minutes.

Decant a small amount of White Spirits into a suitable dish.

Dip a broad flat oil brush into the White Spirit then wipe the brush on a sheet of kitchen roll, which should not deposit any fibres in the oil paint.

Brush the oil paint over the area, in the desired direction, wiping the brush on the sheet of kitchen roll to remove residual oil paint.

Repeat dipping and wiping the brush in the White Spirits and brushing the oil paint until the desired density and finish is achieved.

Leave the oil paint to fully dry, which normally takes approximately 24 hours.

If desired and once the oil paint is fully dry, airbrush a semi-gloss clear coat, such as 'Alclad' Satin (ALC312) or similar, with a few drops of 'Tamiya' Clear Orange (X26) to give a varnished look to the finish.

Surface finish:

Once the oil paint layers have dried, the final top coats can be applied to give the final effect of varnished wood.

'Tamiya' have 'Clear' coloured Acrylic paints, which are intended to be mixed with either Flat Clear (XF86), Semi-Gloss Clear (X35) or Clear (X22), to give the required finish but with a tint of the added 'Clear' colour. I use the Clear Yellow (X24) or Clear Orange (X26) to add a varnished tint to the clear coat. If using the 'Tamiya' Clear I add 'Mr. Colour' Levelling Thinners, which does improve airbrushing and avoids pooling. Otherwise I use 'Alclad' Light Sheen (ALC-311).

Although it's a lacquer, I've found that it will accept 'Tamiya' 'Clear' coloured Acrylics without any separation, which can happen with other paints. The 'Alclad' lacquers dry fast and provide a good sealing layer over the painted surfaces. When using 'Alclad' sealing coats, the golden rule is to allow the various painted surfaces to dry fully before applying 'Alclad' lacquers.

In the following example, I added a few drops of Clear Yellow (X24) into the 'Alclad' Light Sheen (ALC -311) and thoroughly mixed it. Only add small amounts to the 'Alclad' in order to control the amount of tint you desire. I increased my airbrush air pressure to around 20 psi to airbrush the sealing coats over the various cockpit items. The first coat usually dries to a more matte finish, which I assume is due to being sprayed onto the oil paint, rather than onto straight acrylic paint. Once this first coat has dried, I airbrushed several coats of just 'Alclad' Light Sheen (ALC -311), which added not only more sealing coats, but more importantly gave the desired semi-gloss 'varnished' finish I was after.

Below is an **example** of the applied ‘Alclad’ lacquer/X24 mix on the propeller.

NOTE: *Once you are confident using this method of replicating wood finishes, you can vary both the colour of the acrylic base coat and tinting of the sealing coat, to replicate other types of wood used in aircraft construction.*

Once the lacquer coats are thoroughly dry, any detail painting, decals or final weathering can be applied to the parts, as required.

PART 3
WEATHERING

PART 3 - WEATHERING

There are many different types of weathering mediums available now to modellers of aircraft, ships, vehicles and figures, in model of any type. These weathering mediums can be washes based on enamel, clay or ink. Weather pastels, applied by sponge' as well as oil paints of various sorts are also plentiful. Some modellers have even used water colour paints, and pencils. The following are the basic weathering mediums I tend to use on most of my models.

Flory Model clay washes:

The washes I tend to use are the 'Flory Models' Clay Wash 'Grime' and 'Dark Dirt', which come in various shades and consist of a suspended and very fine clay pigment. They are brushed over the surface to be weathered and dry in around 30 minutes. When dry, use either a piece of good, absorbent kitchen roll or a soft brush to remove as much of the clay wash as you need to achieve the desired effect. The kitchen roll can be used dry or very slightly dampened. If dampened, the dried clay is re-activated and the clay wash can be more easily be removed or worked as required.

First I seal the surface with an airbrushed semi-matte clear coat, such as 'Alclad' Light Sheen (ALC-311), which dries quickly. A gloss coat tends to stop the clay wash 'gripping' the surface when it is applied and it can run off or just puddle. A more matte coat can cause the clay wash to 'grip' too much, making it difficult to remove or even to wash it off completely.

NOTE 1: The more glossy the applied sealing coat is, the more the chance there is that the applied 'Flory' clay wash will not spread fully, but rather form puddles or beads of wash. If this happens, add a few drops of ordinary kitchen washing up liquid to the clay wash. This will break the surface tension of the wash, allowing it spread fully.

NOTE 2: Always decant the amount of clay wash you need, rather than dipping the brush directly into the wash bottle. Dipping into the wash bottle can transfer contaminants from the brush into the wash, will can cause the wash to become thick and unusable.

NOTE 3: When a sealing coat is applied over areas treated with clay wash weathering, the intensity of the applied wash tends to darken. This should be considered when removing the clay wash, otherwise the final effect may appear too dark.

NOTE 4: 'Flory' current range of washes are: Dark Dirt, Grime, Black, Light (white), Mud, Sand, Rust and Concrete. All of these washes can be mixed to create many colour shades for different weathering finishes.

To apply the clay wash is just a matter of brushing all over the surface to be weathered. It doesn't matter really how much is applied as it can be left on for any period, as it is easily removed without any effect on the surface underneath. If you don't achieve your desired effect, you can wash it all off and start again. Use a soft brush or absorbent kitchen roll, which are dry or ***very slightly*** dampened, to brush or wipe off the clay wash in the direction of airflow over the model. Even then, dab them onto a dry piece of the paper, until they are almost dry. Any wetter and you'll find that you are removing too much of the clay wash. If that happens you can re-apply the wash and start again. If you're not happy with the final effect, you can easily remove the clay wash by brushing with a wet brush or even airbrush water over the surface. Dry off the surfaces washed and then re-apply the clay wash and try again until you are satisfied. The technique is to 'damp' brush or wipe over the surface to re-activate the clay wash and at the same time, to smear it over areas that had no clay wash. It'll dry within 30 minutes. Then very lightly brush and/or use a piece of damp absorbent paper to remove as much you want until you get the desired effect. Once finished, run the brush under a tap to rinse out any residual clay pigments. Finally, seal the surface with your chosen clear coat, which will seal in the applied clay wash.

Chipping effects:

To give the effect of chipped and weathered paint/varnish to metal engine cowls and forward fuselage panels etc, chipping fluids can be used. To achieve this effect, first prime the areas with a suitable primer then airbrush the metallic finish desired. Once dry, a chipping fluid, such as 'AK Interactive' Medium Chipping fluid or 'Vallejo' chipping fluid is airbrushed over the painted areas. An alternative is to use a cheap hair spray. This forms a barrier which will allow the top coat to be chipped off. Finally the required top coat colour is applied.
Once fully dry, moisten the top coat with water, which softens the paint. Then with a cut down (stiff) brush and wood cocktail stick, gently teased off the top coat paint. Take care when doing this as 'too much chipping' can't really be covered up. In that event you would have wet the top coat and remove it all with an old toothbrush or similar and then when dry, re-spray the top coat and try again. Once the desired effect was achieved, I sealed the surfaces with an airbrushed coat of 'Alclad' Light Sheen (ALC-311).

'Tamiya' Weathering Master sets: Each of these 'Tamiya' produced weathering sets contain three 'tablets' of different colours and an applicator, which has a brush on one end and a sponge on the other. The tablets have a wax look and feel and can be applied onto painted surfaces to reproduce various finishes. It's best to use these as the final surface treatment, as being a 'Wax', any treated surfaces can't be painted or sealed.

Pigments: Pigments, such as those produced by 'Flory Models' or 'Humbrol' are effectively very fine 'dusts', which can be applied to a model to re-create dust, dirt, stains etc. They can be applied by dry brushing or mixed with other mediums to create paintable solutions.

Washes: Washes can be applied to either enhance panel lines etc or to add a 'filter' of colour onto a painted surface. They can be purchased ready made from various manufacturers or can be 'home made' using such as oil paints with a suitable thinning agent. I tend to use 'AK Interactive' products.

Water colour pencils:

Water colour pencils can be used to add weathering detail. The colour s applied to the model part then brushed gently with a brush, slightly dampened with water. This dilutes the pencil marking, allowing it to be faded as desired. 'AK Interactive' produce these 'weathering' pencils, which are marketed specifically for the modeller, although other artist water colour pencils can be used, such as 'Derwent' Inktense 24 ink pencils.

Oil paint: A technique used more frequently now is oil paint ‘dot and drag’. Basically an oil paint of the desired colour is placed onto a piece of cardboard, which over a hour or so, soaks out the oil in the paint, leaving a drier pigment. The pigment is ‘dotted’ onto the painted surface where it is required then dragged with a brush previously wetted with ‘Tamiya’ X20 enamel thinners then wiped virtually dry.
Softly ‘flick’ the brush to drag the pigment in the direction required, which will blend it in a thin layer.
The amount of pigment left showing depends on the effect you require. Always keep the brush wiped clean to avoid a build up of pigment and remoisten and wipe dry often. The more paint you drag, the less pigment is left showing. Blending different coloured pigments can create stains from smoke/gun blast, rain marks/runs, dirt/dust and oil/fuel stains.

A good quality oil paint and thinners are essential to produce a good finish. Some quality oil paints can be too ‘gritty’ when leached of oil, so I use ’Abteilung 502’ oil paints and ‘Tamiya’ Enamel thinners (X20).

PART 4
DECALS

PART 4 - DECALS

Standard decals:

NOTE: *The following is **applicable only** for decals on a **painted surface**. If decals are to be placed on top of **previously applied decals**, the decal setting solutions may 'eat' into the previous decals. In this case a sealing coat of either 'Alclad' Gloss (ALC-310), 'Alclad' Aqua Gloss (ALC-600), Tamiya' Clear (X22) or 'similar should be airbrushed over the first decals, to provide a barrier against the setting solutions.*

Ensure the painted surface is smooth and free from any surface imperfections.

Airbrush a clear gloss sealing coat, such as 'Alclad' Aqua Gloss (ALC-600), 'Tamiya' Clear (X22) or similar to provide a smooth surface.

NOTE: *'MicroSet' solution softens the decal to allow it to conform to the painted surface. Do not attempt to move the decal too much or it may tear.*

Wet the area using a light coat of 'MicroScale' **MicroSet** solution.

Apply the decal after it has soaked in 'warm' water enough to start to loosen the decals from its carrier backing.

Carefully move the decal into the correct position.

Carefully press out any residual water from the decal by either pressing with a tissue or by gently rolling over the decal with a cotton bud.

NOTE: *'MicroSol' solution will soften the decal to allow it to conform fully to the painted surface. The solution usually causes the decal to wrinkle, but this is normal as the decal semi-dissolves to the surface. Once the solution has been applied, never try to disturb the decal as it will tear. Leave the solution for several hours to do its job, after which the decal will return to a smooth surface, but conformed fully to the painted surface.*

Wet the decal surface with a light coat of 'MicroScale' **MicroSol** solution.

Leave the solution for several hours to fully dry and set the decal.

Once fully dry and set, airbrush a sealing coat over the decal, dependant of your desired finish. I tend to use either 'Alclad' Light Sheen (ALC-311) lacquer or 'Tamiya' Semi Gloss (X35).

Once the decal is correctly positioned, use a flat brush to brush the water out from under the decal, working from the centre of the decal out towards the edges. I then use a dry cotton bud in the same manner. Finally, wearing cotton gloves, I apply slight pressure and slide my fingers across the decal to finally push the decal onto the surface.

Once the decals have been applied I airbrush a sealing coat of either 'Alclad' Clear Coat Gloss (ALC-310) lacquer), 'Alclad' Aqua Gloss (ALC-600), 'Tamiya' Clear (X22) or similar over areas of decals where more decals are to be applied.

Once the decals have been applied and are dry I airbrush a final sealing coat of 'Alclad' Light Sheen (ALC-311) or 'Tamiya' Semi-Matt (XF35) over the decals.

To 'knock back' the sheen for applying weathering effects (refer to Part 3 of this build log), for example 'Flory' clay washes or oil paint, I airbrush a sealing coat 'Alclad' Light Sheen (ALC-311) mixed with Flat (ALC-314) at a 3 to 2 ratio.

‘Aviattic’ decals:

The ‘Aviattic’ decals are different in both production techniques and application to those of the more traditional decal manufacturers. Traditional decals are normally created using processes such as silk screen printing and are pre-shaped for the particular model markings. When placed in warm water they will detach from the backing sheet and can then be slid onto the model surface and when they are correctly positioned, wiped with a semi-dry brush or cotton bud etc, to expel any water from under the decal. Once fully dry, decal softeners, such as ‘MicroSol’ and/ or ‘MicroSet’ can be applied, if necessary, to ’weld’ the decal to the model surface. Finally a sealing coat of acrylic or lacquer gloss, semi-matt or flat is applied over the decal, to seal and protect the seal and protect the decal.

However, ‘Aviattic’ decals are laser printed onto a very fine carrier film and although this film is thin, the decals are remarkably resilient and somewhat ‘stretchy’ when being applied. This allows them to be more easily moved and positioned before being finally applied. Also with most other decals, I’ve used softeners to help the decals conform to surface irregularities and contours, which is something I’ve found is not really required for ’Aviattic’ decals, due to the nature of the carrier film. In addition, the decals need to be cut out from the sheet, so care is required to cut the decals accurately to avoid leaving gaps, especially at the edges, where the white base colour will show. That said, minor gaps may be able to be covered with weathering. For more information, refer to the ‘Aviattic’ instruction sheet supplied with the decals.

Aviattic’ decals are laser printed onto either ‘clear’ or ‘white’ backing, the ‘clear’ being dependent on the base coat you apply and the finished effect you desire. The decals are supplied with very clear instructions on their application, including when to add pre-shading to the base coat, where desired, before you apply the decals.

Application:

First airbrush the parts to have decals applied with a primer coat of such as ’AK Interactive’ White (AK759) or Grey (AK758) or similar light colour for ‘clear’ backed decals or ’AK Interactive’ Grey (AK758) for ‘white’ backed decals.

NOTE: *‘Silvering’ is caused by air being trapped in the rough surface of the paint, such as on a matte finish, which after the decal is applied and dries, causes silver sheen patches showing in the decal (’silvering’).*

Once dry, check the surfaces for any imperfections, such as trapped dust or raised areas of paint, which will cause ‘silvering’ under the decals. Any surface imperfections found should be carefully sanded or polished out.

Airbrush at least two light sealing coats of a clear coat such as ’Alclad’ Aqua Gloss (ALC-600) or similar over the painted surface to form a gloss surface for applying the decals.

NOTE: *The surface must be pre-wet with like warm water with. Care needs to be taken when you slide the decal from the backing sheet and onto the model surface, as the thin decal can fold over on itself.*

Soak each decal in warm water for approximately 20 seconds.

Wet the surface of the model where the decal is to be applied.

Carefully slide the decal onto the wetted surface. Make sure the decal does not fold over on itself.

Align the decal to the shape of the model part.

Using a broad, soft brush, brush the decal from the centre outwards to remove any water from under the decal.

Adhere the decal to the model part surface by either pressure rolling over the decal with cotton buds or, as I do, by wearing lint free cotton gloves and rubbing the decal with your fingers.

Check to make sure the decal is in full contact with the surface of the model part and that there are no areas exhibiting ’silvering’ (trapped air under the decal). If so, gently prick through the decal and apply water then press out the water to adhere the decal back onto the model part.

Also check that there are no lifted decal edges around the model part.

Allow the decal to fully set, preferably overnight. Where decals have been applied to large areas, gentle heating using a hair dryer can accelerate the decal setting time.

Where decals cover location holes or other openings, prick or cut through the decal into the hole or opening then apply ‘Tamiya’ X20A thinners, which will soften and adhere the decal into the hole or opening. Using X20A can also conform decals around curves edges etc.

Protect and seal the decals by airbrushing a sealing coat over the decals. If more decals are to be added onto the applied decals a gloss sealing coat should be used. Otherwise a sealing coat of the desired finish can be applied, which should also be done once all of the required decals have been applied.

PART 5
RESIN
GENERAL

PART 5 - RESIN GENERAL

The figures for this model are cast in resin.
Below I have listed what I have found to be the primary differences for parts cast in resin as opposed to styrene (plastic) injection parts:

1. When resin kits are cast in their moulds, a release agent is applied to enable the cast resin parts to be more easily removed, which is similar to plastic kit moulding. This release agent can leave a film on the surface of the kit parts, which, if not removed, can prevent paint or adhesives from adhering to the surfaces. The easiest way to remove this film is to carefully and fully wash all of the model parts in warm soapy water, using an old, soft tooth brush, then rinse all of the parts thoroughly and leave to dry. Alternatively wipe the parts with isopropyl alcohol (e.g. 'Tamiya' X20A thinners).
2. Resin, by its nature, is very brittle and can be damaged or broken easily, especially when handling small parts. This is particularly evident when separating the individual items from the resin cast. The best way to remove item is to cut them away with a razor saw, then clean them up afterwards.
3. Once removed from the resin cast, parts will normally have 'resin flash' around or amongst parts, especially small items. This is easily removed with a sharp scalpel blade. Heavier residue can be scraped, filed or sanded away.
4. Plastic kits are assembled using solvent adhesives, which melt the surface where it is applied and 'weld' the joint together. Resin however will not react to this type of adhesive and can really only be glued using CA adhesive. This adhesive reacts to moisture in the air and on the surface to be joined. As most people know, it will also bond skin to whatever it touches, if the skin has CA adhesive on it. Obviously extreme care needs to be exercised when assembling resin kits using CA adhesive.
5. Cutting, sanding and drilling resin will create swarf and more importantly, resin dust. The dust in particular is dangerous, especially if inhaled. Therefore always vacuum the working area, and yourself, regularly. If you have a face mask or filtered respirator and find you can wear it whilst working, then do so. Resin can easily be drilled or scraped, but remember how brittle resin is when it is being handled.
6. It is not unusual to find imperfections in resin cast parts, such as surface blemishes, small 'blow' holes or ragged edges. This can be common on some resin kits. These imperfections can be rectified by sanding/polishing and/or filling with modelling putty, then sanding/polishing.
7. Generally CA adhesive is supplied as 'instant bond' adhesive, but there are some manufacturers, such as 'VMS Fleky', that supply CA adhesive as standard, thin, slow and specific resin adhesive. Whichever adhesive is used you must ensure parts are correctly positioned and aligned before applying the adhesive. Trying to separate mis-aligned parts once the adhesive sets will prove very difficult and may result in irreparable damage to the parts.

PART 6
RIGGING

PART 6 - RIGGING

References:

'Copper State Models' instruction manual.
'Windsock' date file No.44 - Bristol Scouts (J.M. Bruce).
'Warpaint Series No.128' - Bristol Scout (Matthew Willis).
On-line resources (various).

General:

Before any assembly, painting or application of decals, you should check that rigging attachment points are drilled out (later in this build). Most models have these located on the model, but it's best to carry out research in reference books or research on line before drilling. Some modellers use micro drills manufactured for drilling printed circuit boards and these drill bits sometimes have identifying coloured collars fitted to the drill shanks to denote the drill diameters. I've found that care needs to be taken when using these drills, as they are sharp and instead of easing their way into the plastic of the model, they tend to bite in and effectively 'cork screw' their way in, which causes jamming and lots of broken drills. This is not only expensive but can leave broken drill bits in the model, which are virtually impossible to extract. An alternative is to use High Speed Steel (HSS) drill bits, which are cheaper and have less 'bite' when in use, although again, they are very fragile and can very easily be broken. Some modellers drill through the wings etc of the model and rig by pulling through the rigging line/EZ thread etc, gluing in position and then rubbing down the exposed line 'tag' and then re-painting that area. I prefer to drill only part way into the plastic and attach the applicable rigging fixture with CA adhesive, using mono-filament (fishing line) as the rigging wires.

Required rigging:

Typically the structural rigging and flight control cables were the standard wire wound cable.

Flight control cables:

Rudder, elevator and aileron control cables.

Internal rigging:

Cockpit frames crossed braced.

External rigging:

Cabane strut bracing
Twin rear and forward flying wires
Single rear and forward landing wires
Incidence wires between interplane struts
Landing gear bracing
Upper and lower drag wires.

NOTE: *The following illustrations and photographs are intended to supplement the rigging and control cable illustrations in the pages of the Copper State Models instruction manual. They include photographs of David Bremner's Scout C, built over fourteen years and based on grandfathers actual aircraft (Serial No.1264) flown in WW1.*

Refer to Part 11 (Fuselage construction) of this build log - not all of the fuselage internal rigging will be visible on the completed model, especially the cross bracing across the top of the cockpit side frames. This model will have open access panels in the fuselage sides, so some of that rigging will be visible and therefore added.

Internal rigging:

Bracing wires:

NOTE: *Not all of the internal bracing wires need to be fitted as some will not be visible on the completed model. Refer to pages 5, 7 and 8 in the instruction manual.*

Crossed bracing wires were fitted as follows:

Between the upper and lower longerons of the cockpit side frames, corner to corner and between each upright frame member.

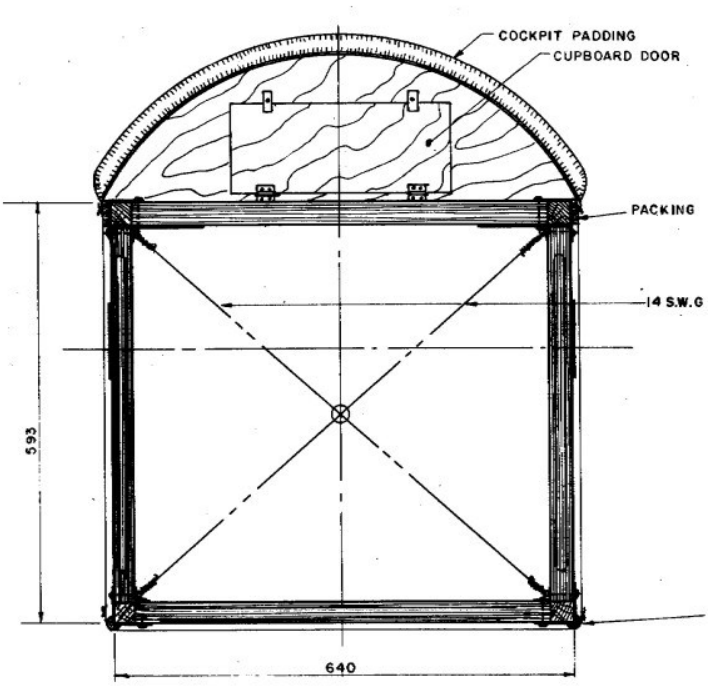
Between the left and right cockpit side frames at the bottom of the fourth vertical frame members from the front of the frames.

Between the tops of the left and right cockpit frames, corner to corner between the first four horizontal frame members.

Between the bottoms of the left and right cockpit frames, corner to corner between each of the horizontal frame members.

Between the corners of the fuselage frame at the rear of the pilots seat (fuselage frames further rearwards will not be seen in the completed model). **These wires are not shown in the instruction manual.**

Turnbuckles would have been fitted to each bracing wire and normally at accessible areas for easier adjustment.

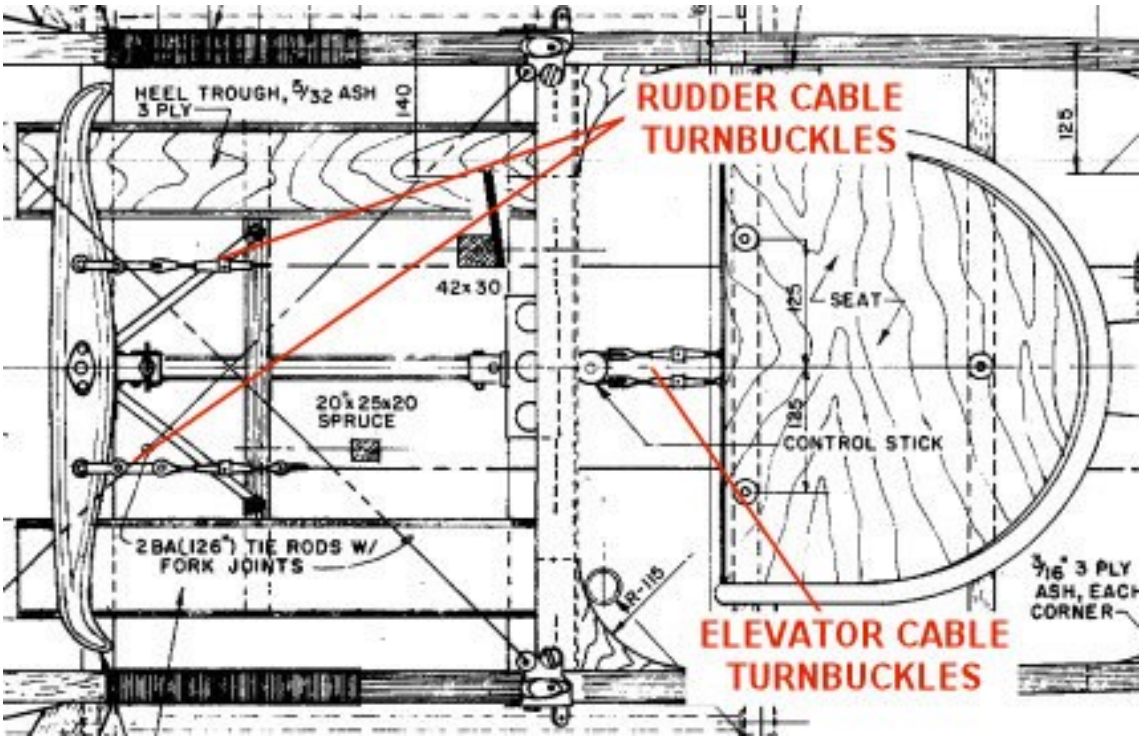


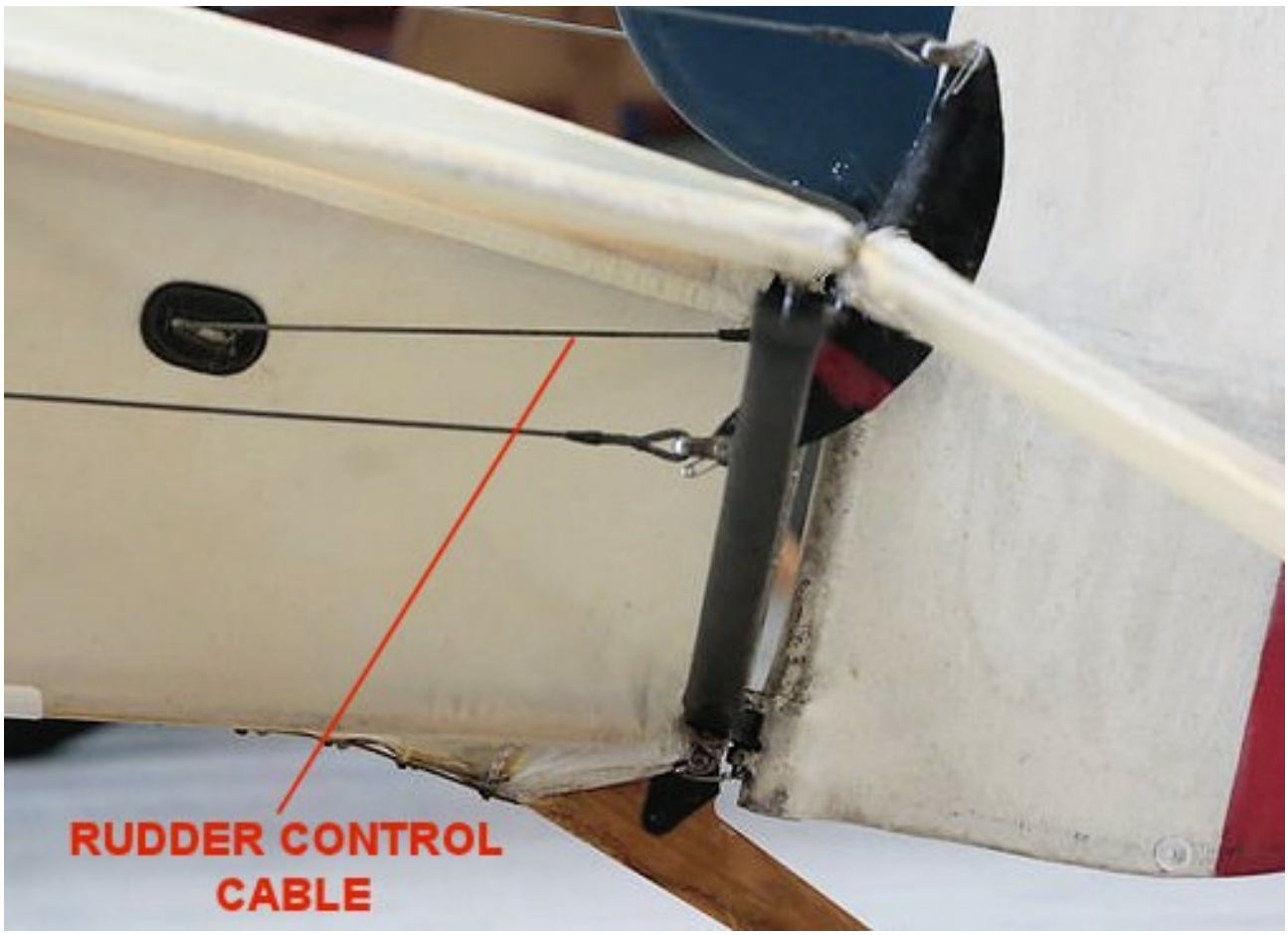
The crossed bracing across the frame at the rear of the pilots seat was 14 SWG piano wire and would not have had turnbuckles fitted.

Rudder control cables:

NOTE: *Refer to page 6 in the instruction manual.*

Rudder control cables were fitted to the pilots rudder bar and were routed rearwards through the fuselage. The cables exited each side at the fuselage rear and were connected to the ends of the rudder control horns. Turnbuckles were fitted in the cables at the rudder bar.
As the pilot moved the rudder bar either left or right, the rudder was turned left or right, causing the aircraft to yaw (turn) in the required direction.

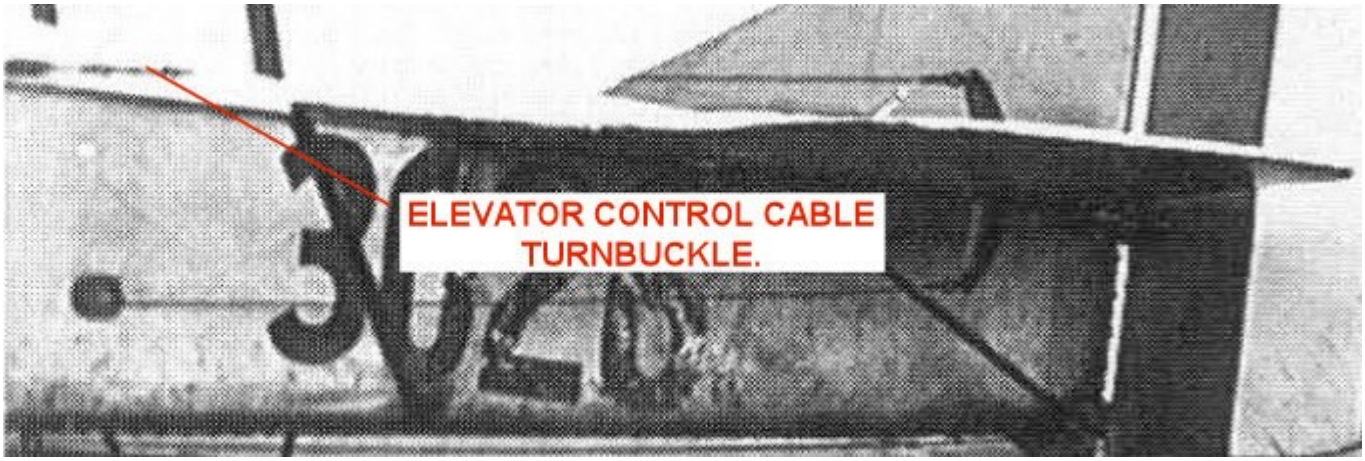


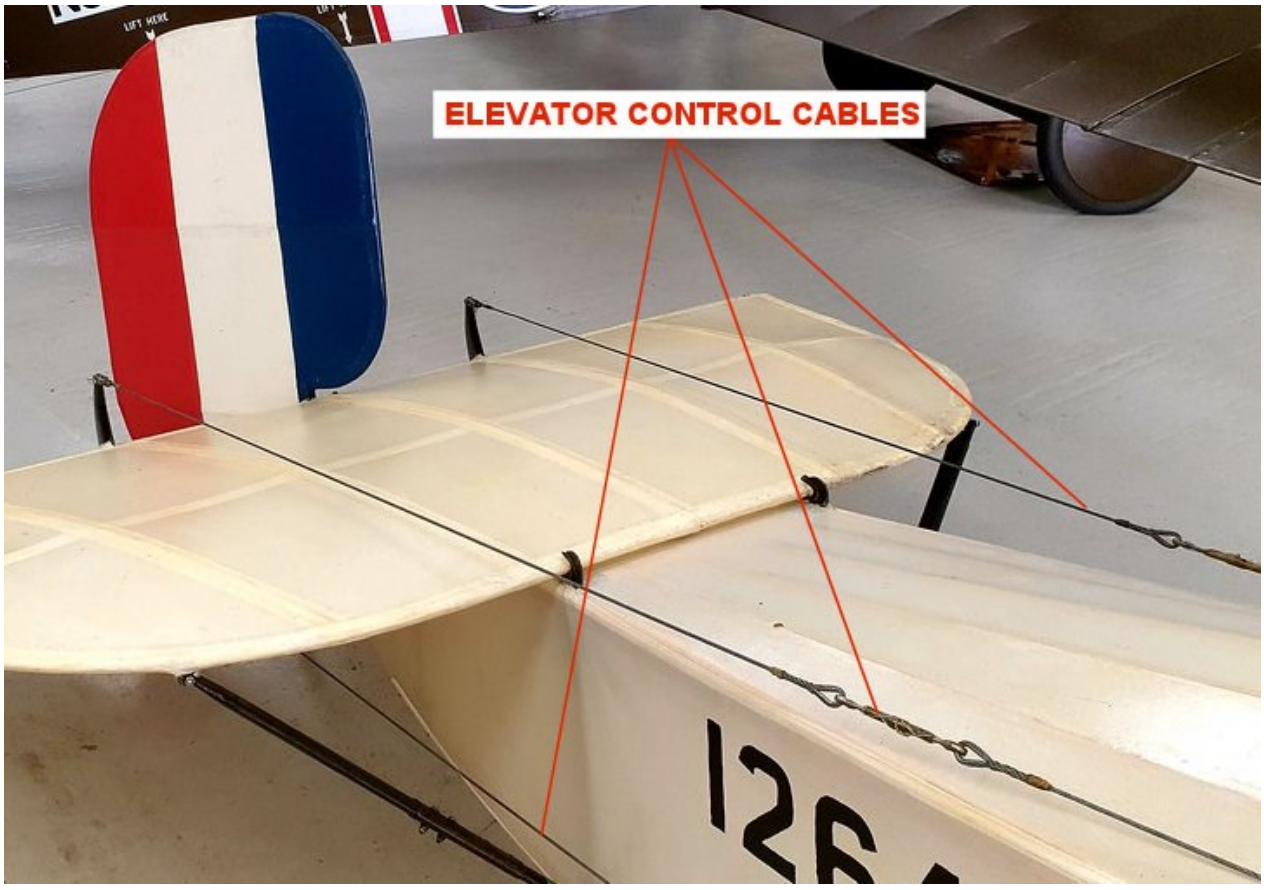


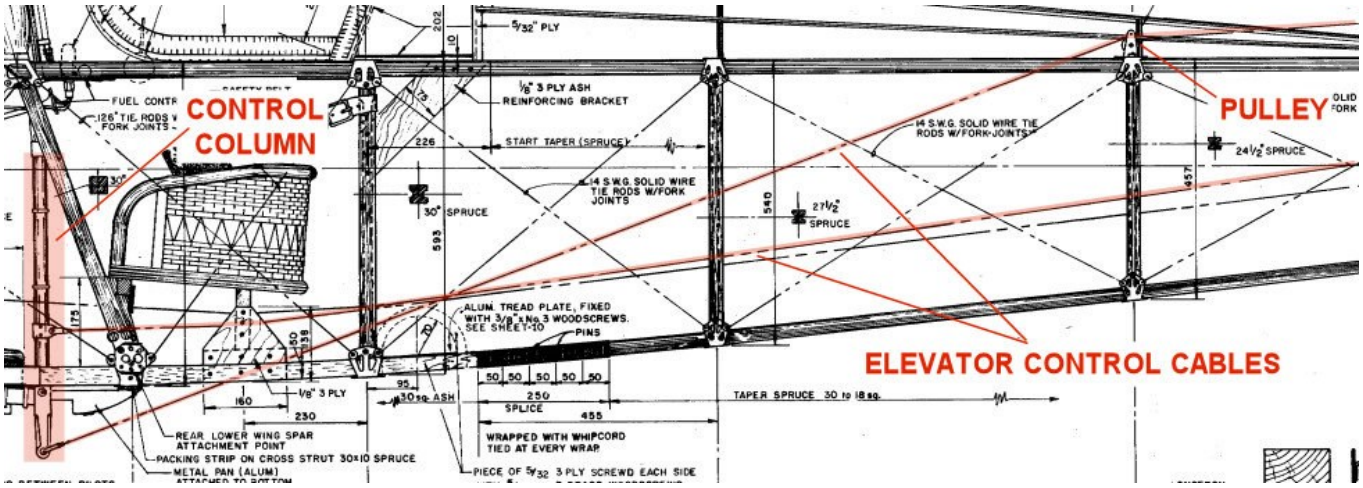
Elevator control cables:

NOTE: *Refer to pages 6, 10 and 12 in the instruction manual.*

Elevator control cables were fitted to the pilots control column, at the bottom and above the aileron torsion bar. The upper cables were routed rearwards through the fuselage and exited each side at the fuselage rear and were connected to the ends of the lower elevator control horns. The bottom of the control column with the lower elevator control cables protruded through the underside of the fuselage. Those control cables were routed rearwards and back into the fuselage the rearwards and up over pulleys on the top longerons. The cables exited through the fuselage each side at the fuselage rear and were connected to the ends of the upper elevator control horns. Photographs of the Scout type C show turnbuckles fitted externally and it seems only in the upper elevator control cables, indicating that each cable was a continuous loop.
As the pilot either pulled back or pushed forward the control column, the elevator was either lifted or lowered, causing the aircraft to pitch (climb/dive) in the required direction.



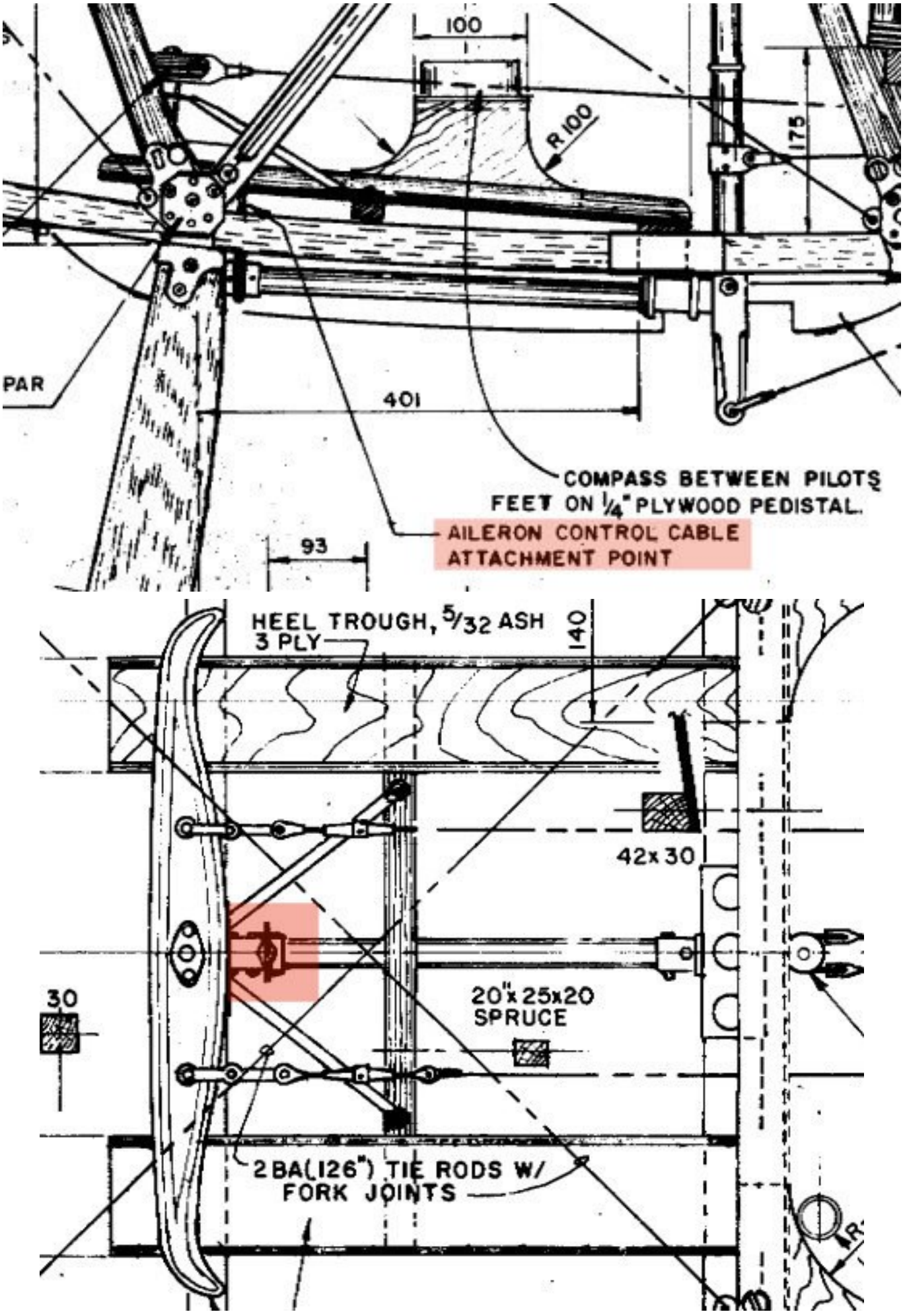


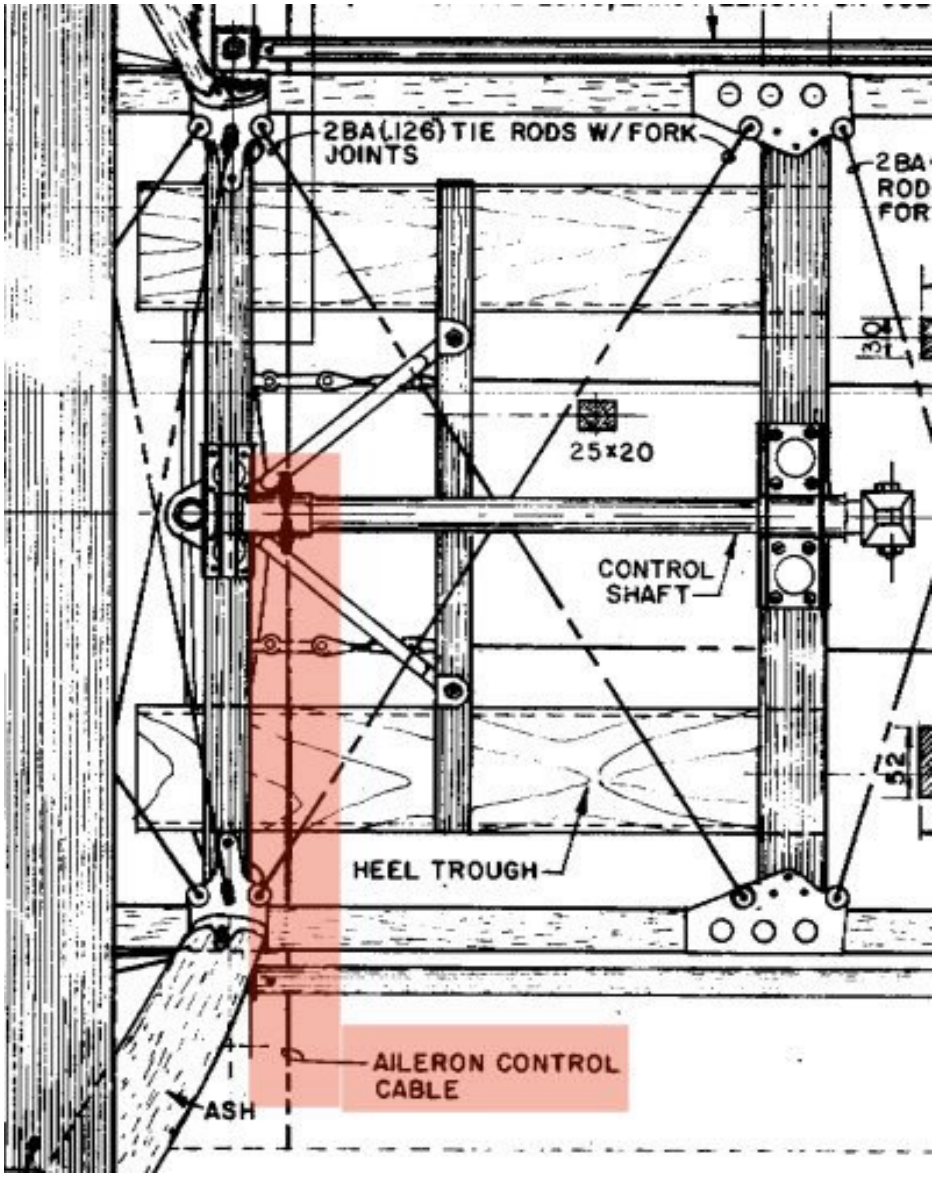


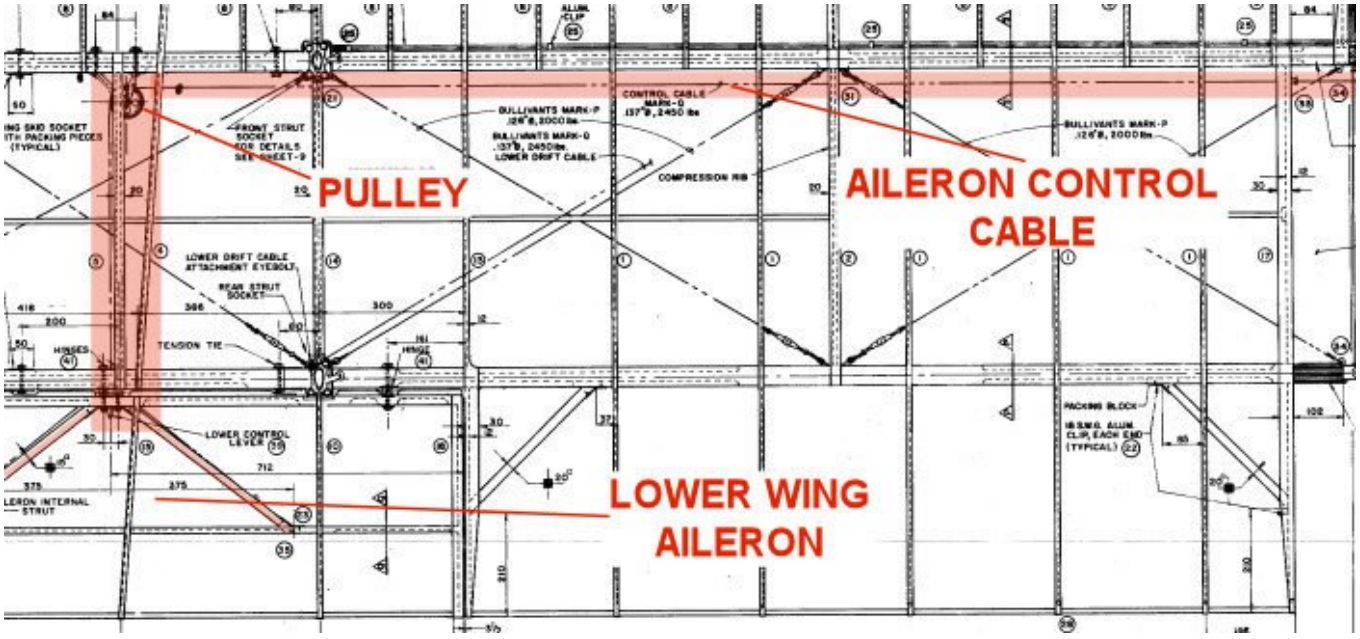
Aileron control cables:

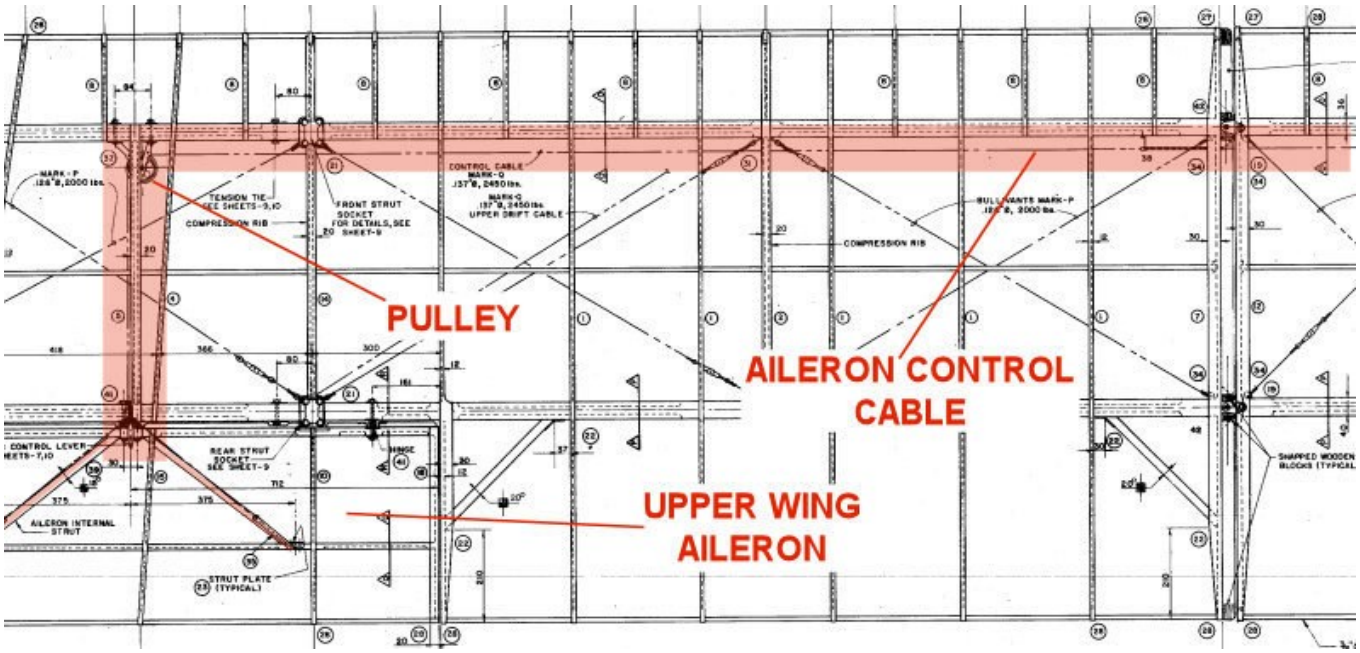
NOTE: *Refer to pages 14, 15and 16 in the instruction manual.* ***The instruction manual contains no information for aileron controls inside the cockpit.***

The movement of the ailerons on the upper and lower wings was controlled by cables. A torque tube was attached to the base of the control column and went forward to under the rudder bar assembly. Attached to the rudder bar end of the tube was a double ended bell crank lever. An aileron control cable was attached to one end of the lever and was routed outboard through the lower wing on that side then around a pulley. It was then routed rearwards to the aileron control horn. Two separate cables attached to the control horn were routed rearwards into through the aileron then up and through the upper wing aileron to its control horn. A control cable attached to the upper control horn was routed forwards inside the upper wing and around a pulley then across the wing to the opposite wing. The cable was externally exposed at the underside of the upper wing centre section, between the forward cabane struts, presumably due to the dihedral angle of the upper wings outer sections. The internal upper and lower wings on that side were the same as before, ending up with a control cable being attached to that side of the bell crank lever on the cockpit torque tube.


100
R100
175
PAR
401
COMPASS BETWEEN PILOTS FEET ON 1/4" PLYWOOD PEDISTAL.
AILERON CONTROL CABLE ATTACHMENT POINT
93
HEEL TROUGH, 5/32 ASH 3 PLY
140
42x30
30
20"x25x20 SPRUCE
2 BA(126") TIE RODS W/ FORK JOINTS


2BA(.126) TIE RODS W/ FORK JOINTS
25x20
CONTROL SHAFT
HEEL TROUGH
AILERON CONTROL CABLE


PULLEY
AILERON CONTROL CABLE
LOWER WING AILERON



As the pilot moved the control column left or right, the torque tube with rotated and rotated the bell crank lever. This caused the control cables on one side of the aircraft to pull in tension and the cables on the opposite side to follow the cable movement. This caused the ailerons on one side of the aircraft to lift and the opposite side ailerons to lower, causing aircraft to roll (bank) in the required direction.

A turnbuckle was fitted in the control cable at the underside of the upper wing centre section.

External rigging:

Fuselage cabane stut bracing wires:

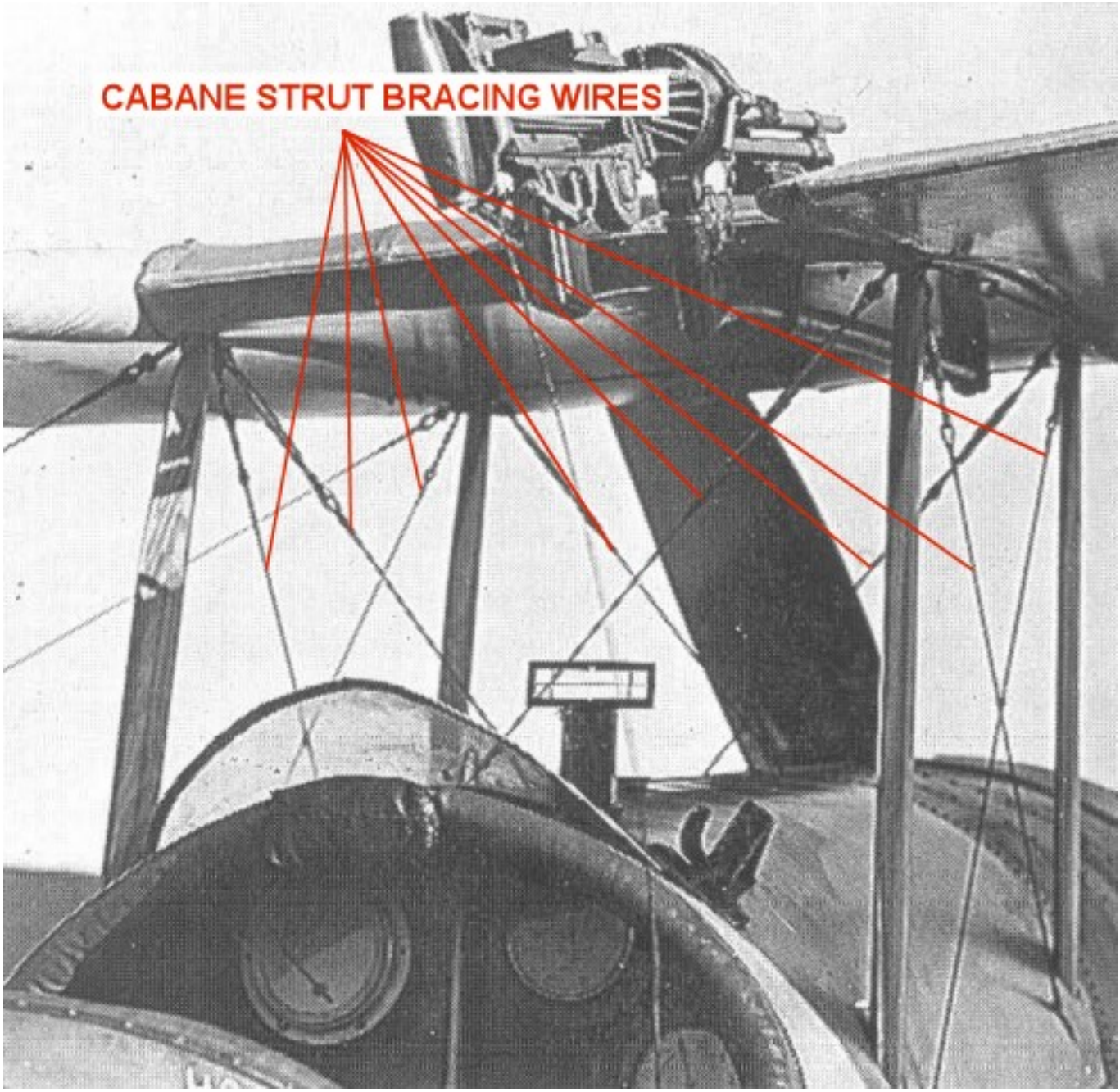
NOTE: *Refer to pages 11, 12 and 14 in the instruction manual.*

Crossed bracing wires were fitted:

Across the fuselage between the rear and front fuselage cabane struts.

Between the rear and front fuselage cabane struts on each side of the fuselage.

The wires were routed through the fuselage decking panel and attached internally onto the fuselage longerons. Turnbuckles were fitted externally at the tops of the wires.



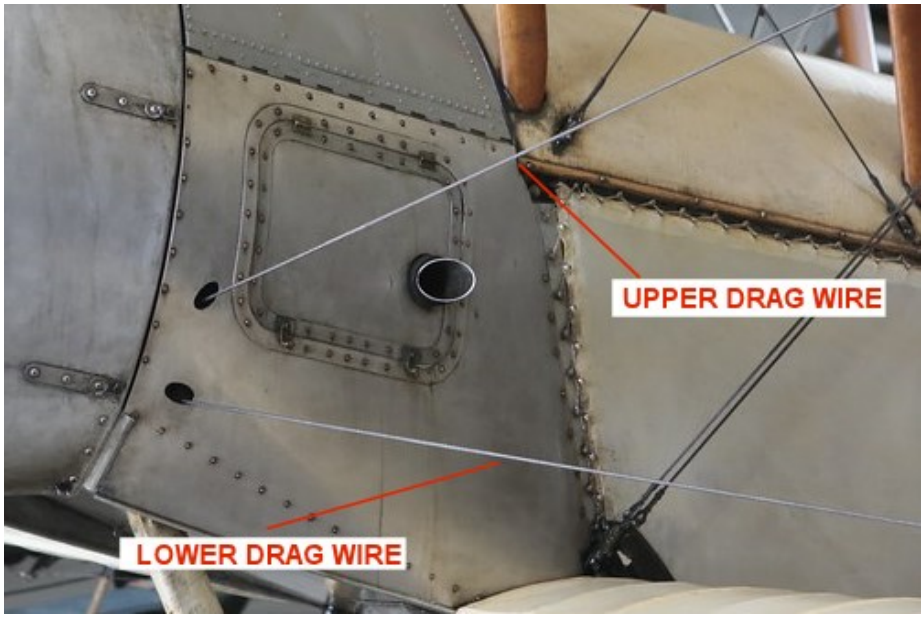
Drag wires:

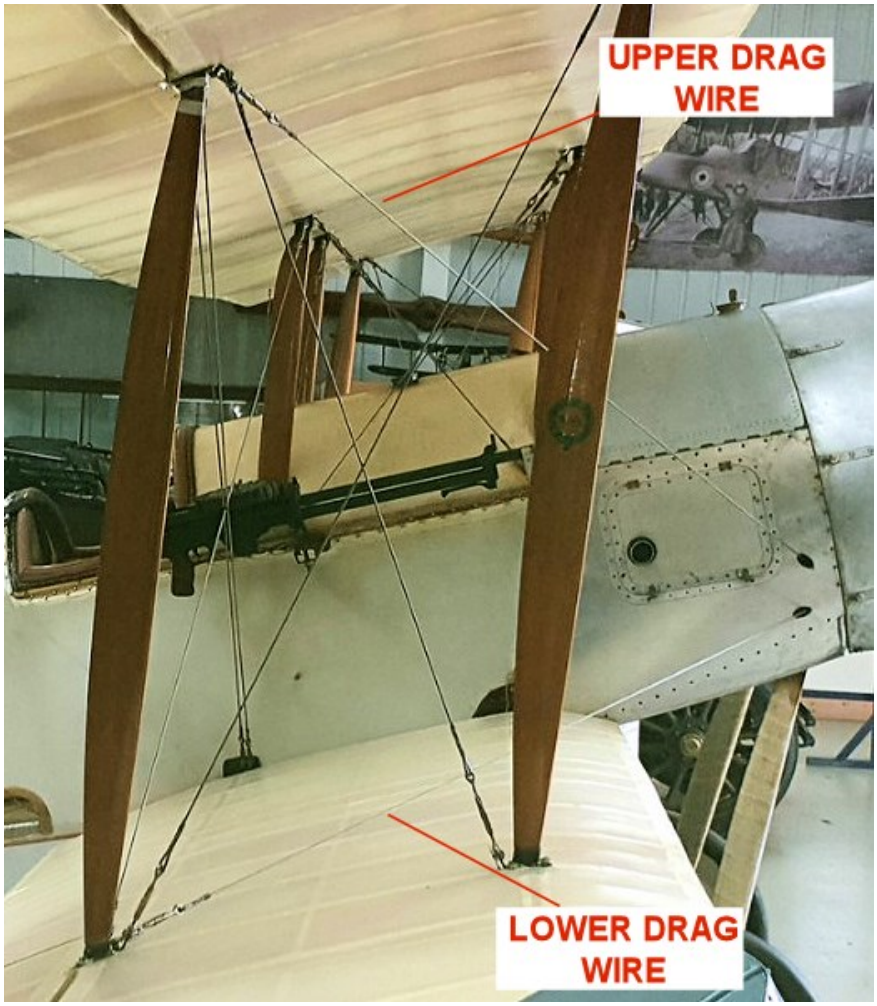
NOTE: *Refer to pages 5 to 8, 12, 16 and 17 in the instruction manual.* ***The drag wires are illustrated, but have not been highlighted in red and required rigging.***

Upper drag wires were fitted through the fuselage from the engine bulkhead and across to the underside of the upper wing at the top of the rear interplane struts.

Lower drag wires were fitted between through the fuselage from the engine bulkhead and across to the top surface of the lower wings at the bottom of the rear interplane struts.

Turnbuckles were fitted in the wires at the interplane struts.





Incidence wires:

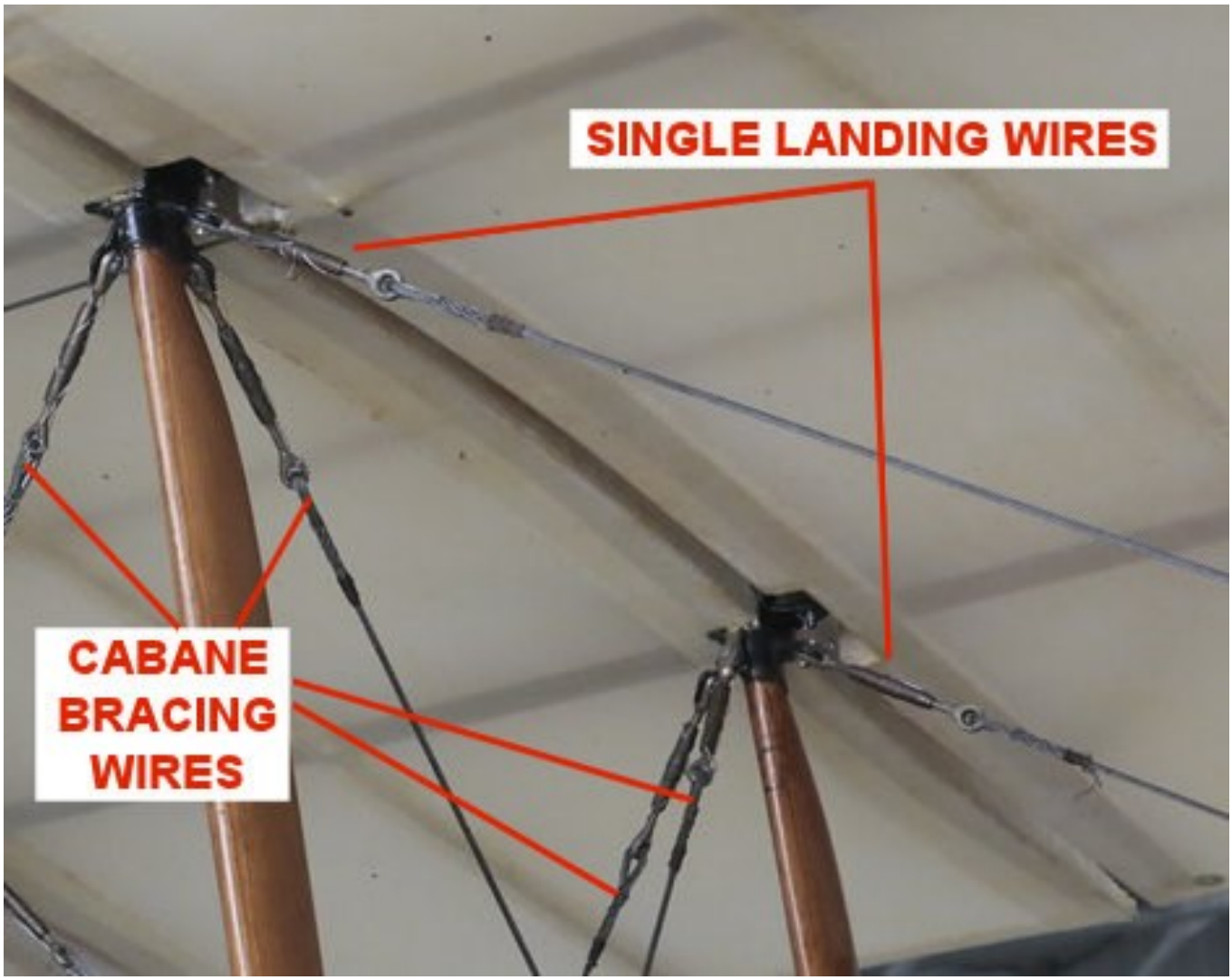
NOTE: *Refer to page 16 in the instruction manual.*

Crossed incidence wires were fitted between the upper and lower wings and from the tops and bottoms of the interplane struts. Turnbuckles were fitted in the wires at the bottom of the interplane struts.

Landing wires:

NOTE: *Refer to page 16 in the instruction manual.*

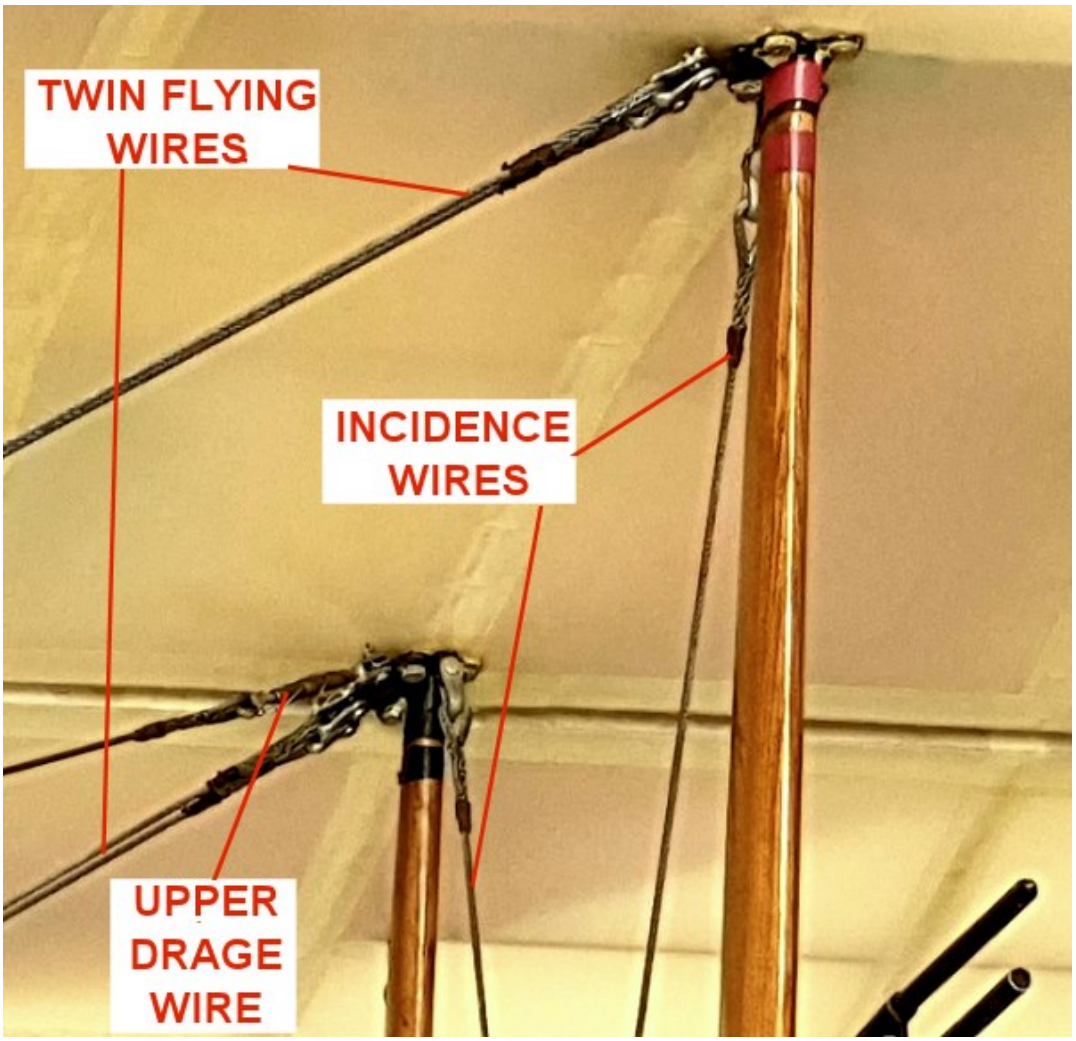
Two landing wires were fitted at both sides of the aircraft. The forward and rear wires were attached between the underside of the upper wing, outboard from the fuselage front and rear cabane struts and routed diagonally down the top surface of the lower wings, inboard from the bases of the front and rear interplane struts. Turnbuckles were fitted in the wires at the cabane strut ends.

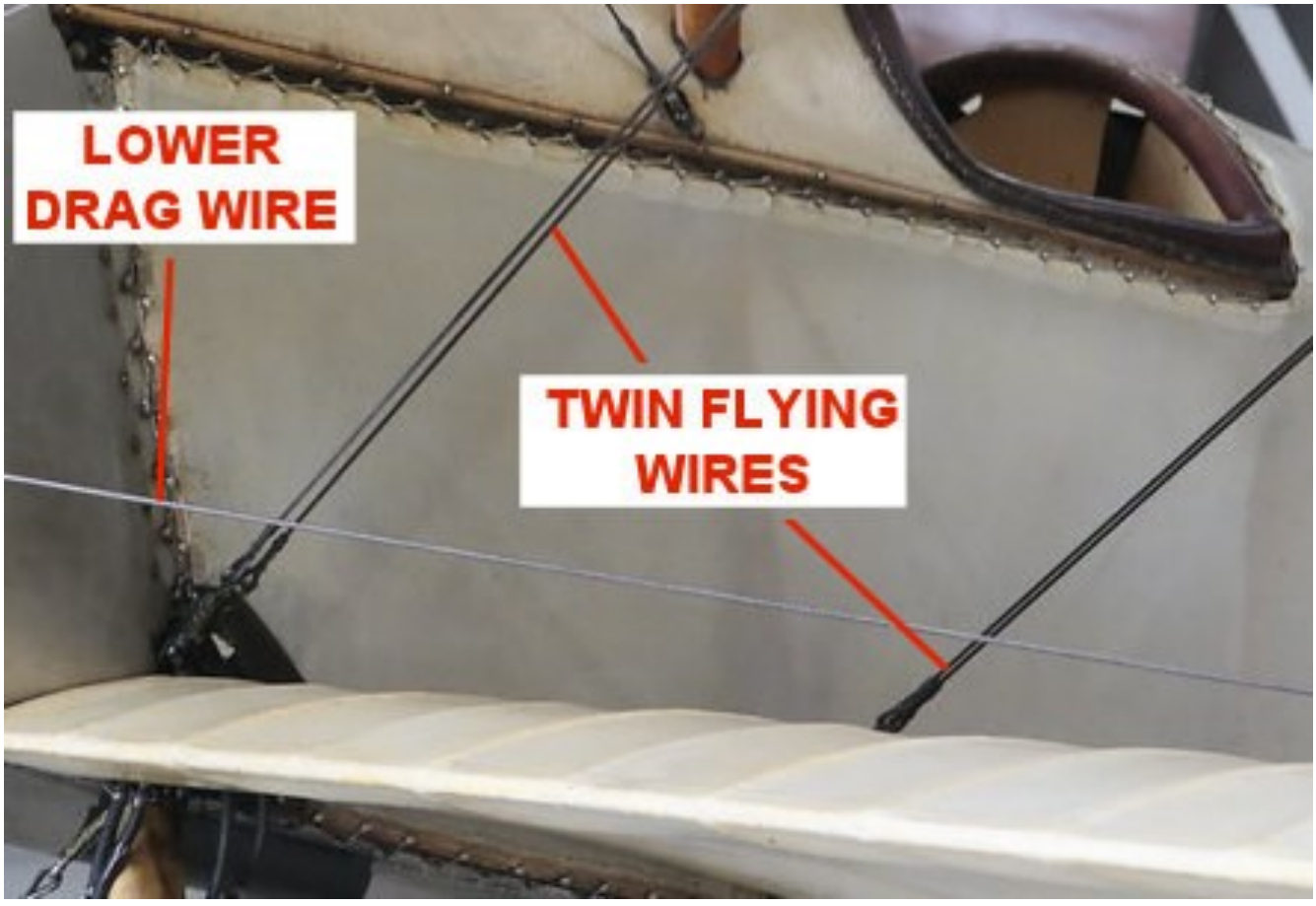


Flying wires:

NOTE: *Refer to page 16 in the instruction manual.* ***The twin flying wires are illustrated, but are only highlighted in red as required rigging at step 38 in the instruction manual.***

Twin flying wires were fitted at both sides of the aircraft. The forward and rear twin wires were attached between the lower wing to fuselage joint (wing root) and routed diagonally up the top of the front and rear interplane struts. Turnbuckles were fitted in the wires at the interplane struts.


TWIN FLYING WIRES
INCIDENCE WIRES
UPPER DRAGE WIRE


LOWER DRAG WIRE
TWIN FLYING WIRES

Landing gear bracing wires:

NOTE: *Refer to page 17 in the instruction manual.*

Crossed bracing wires were fitted between the underside of the fuselage, inboard from the landing gear rear struts and diagonally down and across to the bottom of the landing gear stuts.

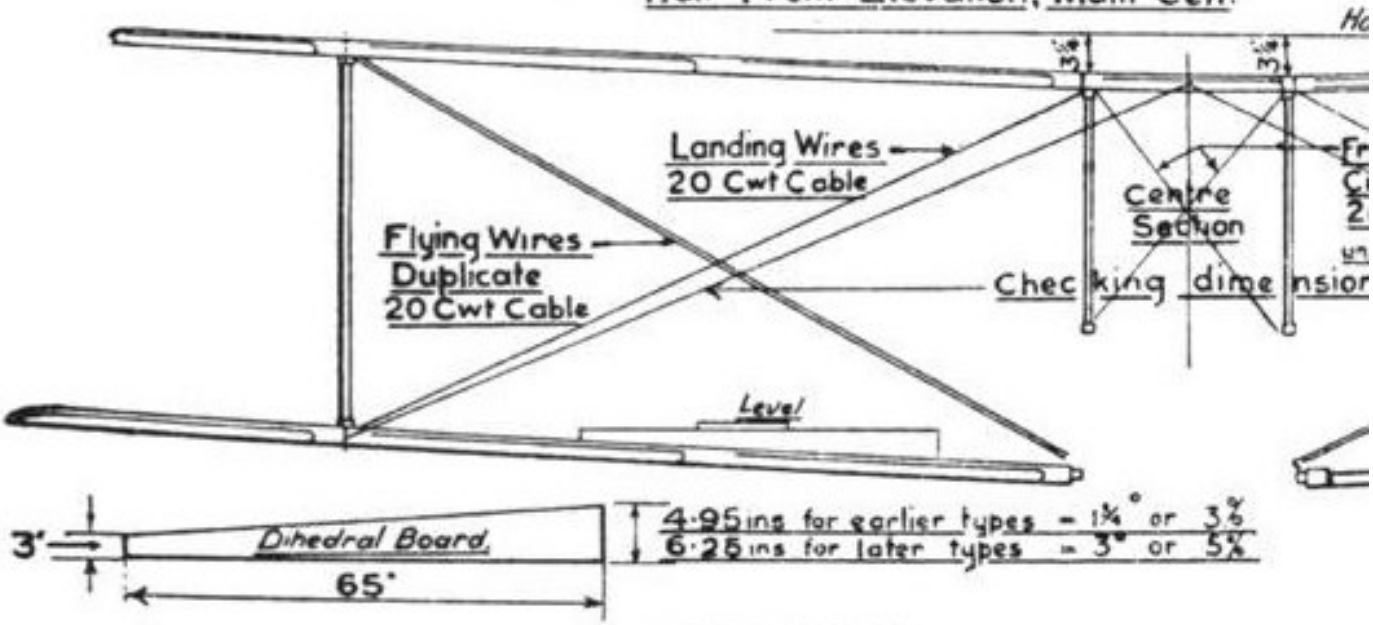
Crossed bracing wires were also fitted between the bottom of the landing gear front and rear struts and diagonally across the top of the axle to the opposite struts.

Turnbuckles were fitted to the fuselage ends of the bracing wires. The over axle wires had a turn-buckle fitted to the forward ends of the wires.

Cable locations and diameters

BRISTOL SCOUT
TYPE C.

FIG 3.
Half Front Elevation, Main Cell.



CENTRE SECTION.

Lateral.

Centre Section Bay must be perfectly square viewed from the front, with struts vertical and parallel in flying position. Check by plumb lines from upper sockets and adjust by altering cross bracing wires at front and rear.

For longitudinal adjustment see Figs. 1 and 2.

MAIN CELL.

Dihedral. (Earlier types).

Angle of dihedral is the same on both front and rear spars, being 3° or 1¾ degrees. Adjust by stretching strings over centres of front and rear spars from tip to tip of wings. Measurements downwards from these lines to upper surface of centre section over struts at each side, should show 3¼ inches at front spar and 3½ inches at rear spar. This difference is due to rear spars being slightly longer than front spars.

(Later types).

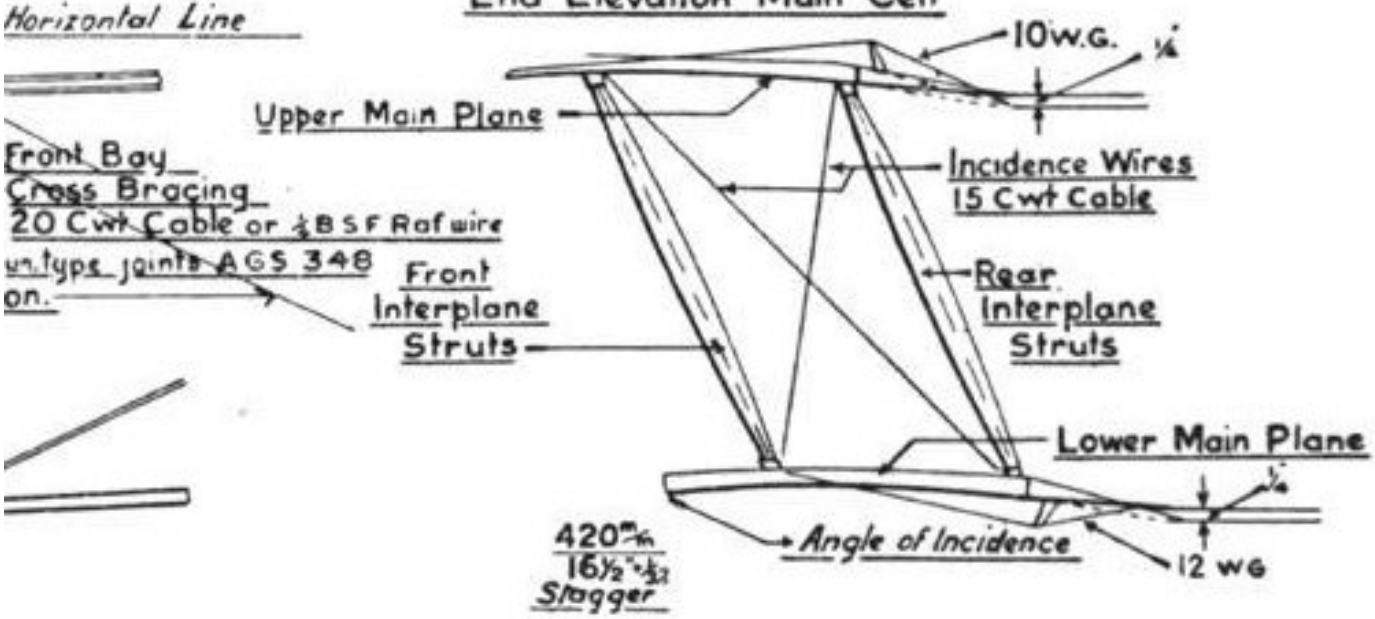
Dihedral angle in later types is 5° on both spars. Adjust with strings as before, the measurements being 5 7·16 inches on front spar and 5 13·16 inches on rear spar. In all these types the wings are marked "5° Dihedral" on upper surface near root. When wings are not so marked, 3° dihedral is required.

Dihedral boards may also be used, placed laterally along centre of spar as indicated in Fig. 3. Adjust by altering landing and flying wires till top edge of board is level, care being taken to use correct board for the particular type.

It is of the greatest importance that dihedral shall be perfectly balanced about the vertical centre-line. Check by measuring corresponding diagonals right and left, from exact centre of leading edge. Upper plane centre section, to centre of leading edge of lower main plane, at outer struts. These measurements must be precisely equal. When adjusting dihedral, all drift cables should be left slack.

BRISTOL SCOUT
TYPE C.

FIG. 4.
End Elevation Main Cell



MAIN CELL.

Stagger.

Leading edges of upper and lower planes of each wing should be perfectly straight and parallel, with stagger constant throughout. Check by dropping four plumb lines from leading edge of upper plane, one at each side of fuselage and one at each outer strut. These should all line up perfectly from the side and each should be exactly 420m/m. or 16½ ± 1-32 inches in front of leading edge of lower main plane. Adjust by altering incidence wires, with all drag and anti-drag wires slackened off.

Incidence.

The angle of incidence at root is fixed by wing sockets on fuselage. In flying position, incidence should be 1¾ to 2¼ degrees, measured between the chord of the main planes and the horizontal as indicated in Fig. 4.

Wash.

Incidence should be constant throughout length of planes. There is thus NO WASH on either wing. Check with straightedge and Abney level, or by sighting from the front.

When fitted with Raf-wires the following sizes are used

Flying wires (Duplicate) front & rear	¼ B.S.F. with universal Joints type A.G.S. 348
Landing wires (Single) " "	
Aileron connecting wires	2 B.A. raf-wire with un. joints A.G.S. 347
Incidence wires	
Cent. Sect. fore and aft bracing	

PART 7
ENGINE

PART 7 - ENGINE

NOTE:

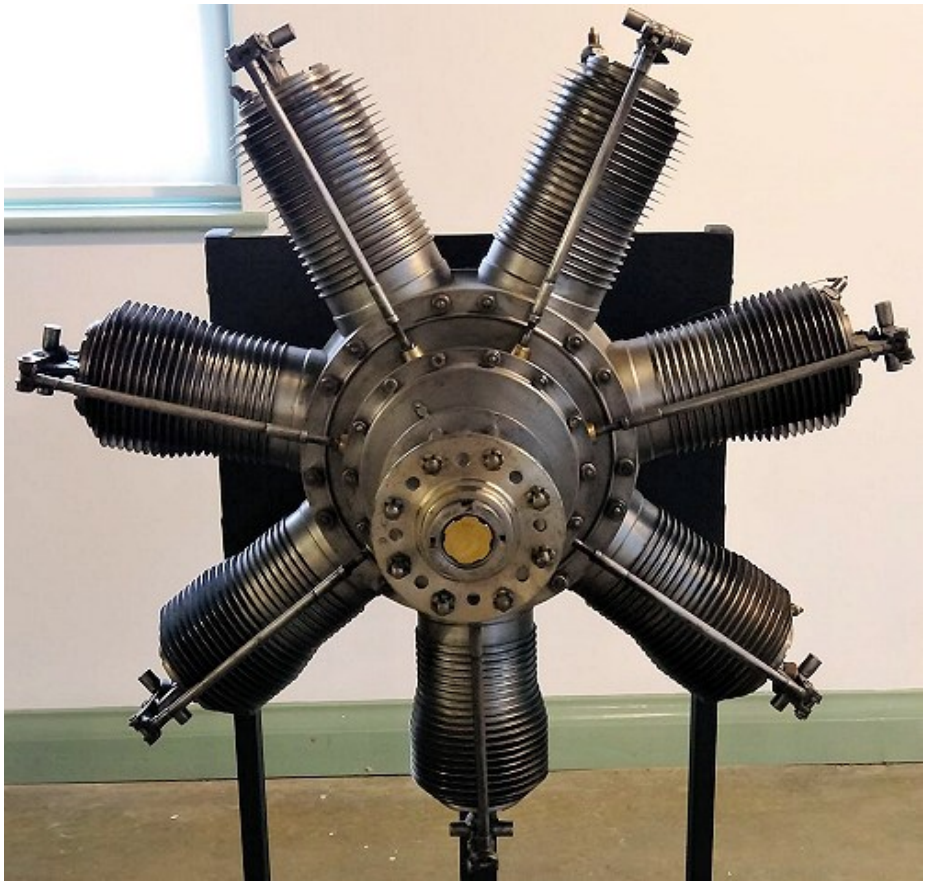
'Tamiya' liquid cement is used for cementing the engine parts together.

Before working with model parts, make sure that when removed from their sprues, all mould seams, sprue tags or mould 'flash' are removed from each part.

Models parts are made with very close tolerances and any primer or paint may stop parts locating fully together.

Engine:

The engine fitted to this particular model is the Gnome Lambda 80hp rotary engine.



Assembly:

NOTE: *Refer to Page 17 of the kit instruction manual. The engine supplied in the kit is of good quality. However, when the two halves of the engine are secured together, there is a slight overlap of the cylinder cooling fins along each joint seam. However, the full engine cowl, when fitted, covers most of the engine, which makes the seam overlaps less visible.*

Cement the two halves of the engine (E1 and E2) together.

If desired, lightly scrape along the joint seams to lessen the overlap.

Cement the propeller hub (E7) into its locating recess on the front of the engine.

NOTE: *The smaller diameter side of the ignition distributer (E8) is the side to attach to the rear of the engine.*

Cement the ignition distributer (E8) into its locating recess on the rear of the engine.

To remove any misalignment, use a drill of 1.0 mm diameter to lightly drill into the seven pre-moulded recesses around the propeller hub. This will allow easier fit of the push rods.

Using the pre-mould recesses in the ends of the tabs around the rear of the ignition distributer as guides, drill holes of 0.2 mm diameter through the tabs (for attaching spark plug HT leads).

Modification:

Spark plugs:

NOTE: *It can be difficult to attach HT leads to the pre-moulded spark plugs in the engine cylinders. Therefore, I chose to remove the plugs and replace them with tubes, to which HT leads can more easily be attached.*

Cut away the seven spark plugs from the engine cylinders.

Point mark the centre of each 'witness' mark from the removed plugs.

Using the point marks as guides, drill holes of 0.4 mm diameter into each cylinder head.

Cut seven long lengths of 0.2 mm diameter copper wire or similar.

Roll cut seven short lengths of 0.4 mm diameter Brass tube, such as 'Albion Alloy's MBT04 or similar.

Use a 0.2 mm diameter drill to remove any burrs from the bore of the tube.

Insert a wire into each tube and secure in place using thin CA adhesive.

Painting:

Airbrush the engine assembly and push rods with a light coat of black primer, such as 'Tamiya' Gloss Black (X1) or similar.

Airbrush the engine assembly and push rods with light coat of 'Alclad' Steel (ALC-112) or similar.

Brush 'AK Interactive' Kerosene AK-2039 wash around the engine assembly.

Lightly sponge 'Tamiya' Weathering Master Set D (Burnt Blue) around the cylinder heads.

Brush paint the bottom guides on each push rod with 'Mr. Colour' Brass (219) or similar.

Cement the seven push rods into their locating holes around the centre casing and into their recesses in the tops of the cylinders.

Modification (continued):

Spark plugs:

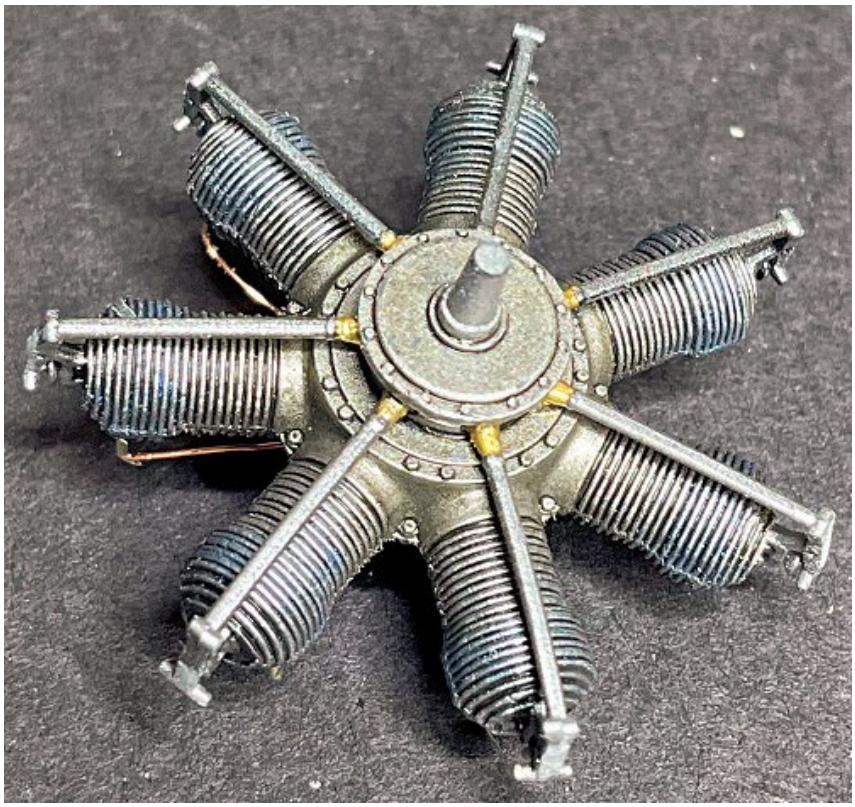
Insert a spark plug tube into each of the pre-drilled holes in the cylinder heads and secure them in place using thin CA adhesive.

Brush paint the spark plugs with 'Tamiya' Deck Tan (XF55) or similar.

Bend each wire down and pass it through its pre-drilled hole in the front side of its tag on the ignition distributer.

Secure the wires in the ignition distributer tabs using thin CA adhesive.

Cut away any residual end of the wires at the rear of the tabs on the ignition distributer tabs.



PART 8
PROPELLER

PART 8 - PROPELLER

The kit supplied propeller is of good quality, but I preferred to replace the kit supplied propeller with a ‘ProperPlane’ wood laminated ‘Bristol’ propeller made by Alexey Belov of ‘Proper Plane’.

Preparation:

Saw the two propeller hubs from their casting blocks and flat sand their rear faces to the thickness of the back plates.

NOTE: *The shaft locating hole in the propeller is larger than the engine propeller shaft.*

Drill a hole of 2.0 mm diameter through the centre of the rear propeller hub plate..

Cut a short length of 2.0 mm and 1.8 mm diameter Brass tube, such as ‘Albion Alloy’s’ MBT20 and MBT18 or similar.

Hold the propeller front hub plate in its recesses in the propeller.

Trim the lengths of the two tubes to the same length, able to be passed through the hole in the propeller rear hub plate, into the propeller locating hole and in contact with the front hub plate.

Make sure the two tubes contact the front hub plate and are flush with the rear hub plate. Trim the tube lengths if necessary.

NOTE: *The engine propeller shaft is slightly tapered and needs to be made parallel to fit inside the 1.8 mm diameter tube.*

Carefully scrape or sand the engine propeller shaft so the 1.8 mm diameter tube will fit onto the shaft.

Decals:

Apply the kit supplied decal (14) centrally and midway along one propeller blade.

Painting:

Brush paint the two propeller hub plates with ’Mr. Colour’ Stainless Steel (213) or similar.

Using thin CA adhesive, secure the front hub into its recess in the propeller.

Using thin CA adhesive, secure the rear hub centrally onto the rear of the propeller.

Airbrush the propeller with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar.

Brush ’AK Interactive’ Kerosene wash (AL3029) over the two propeller hubs.

Assembly:

Using thin CA adhesive, secure the 1.8 mm diameter into the 2.0 mm diameter tube, with the ends flush to each other.

Using thin CA adhesive, secure the propeller front hub plate into its recess in the propeller.

Using thin CA adhesive, secure the propeller rear hub plate centrally onto the rear of the propeller.

Pass the two tube assembly through the hole in the propeller rear hub plate and against the propeller front hub plate.

Using thin CA adhesive, secure the tube assembly into propeller and rear hub plate.

PART 9
WEAPON

PART 9 - WEAPON

NOTE:

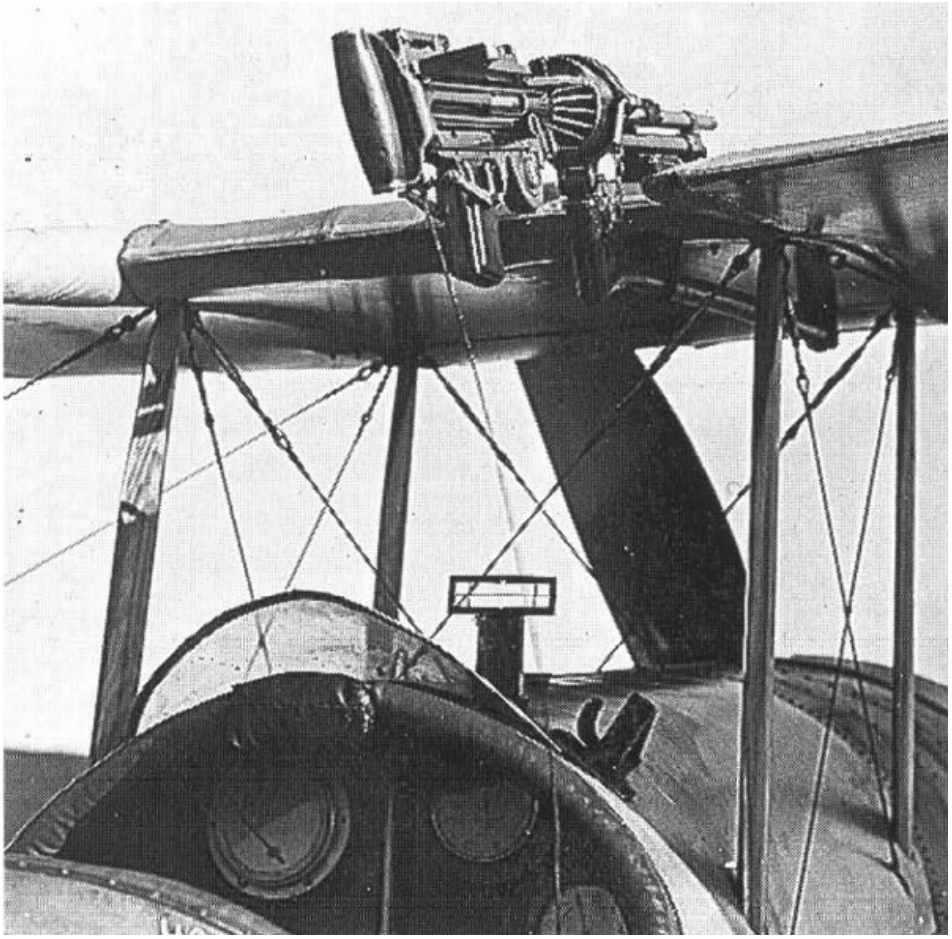
When cementing large kit parts, I use 'Revell' Contacta Professional cement (39604). This is a thicker liquid cement, which takes longer to fully set, but does provide a stronger bond between larger kit parts. 'Tamiya' liquid cement is used for smaller parts.

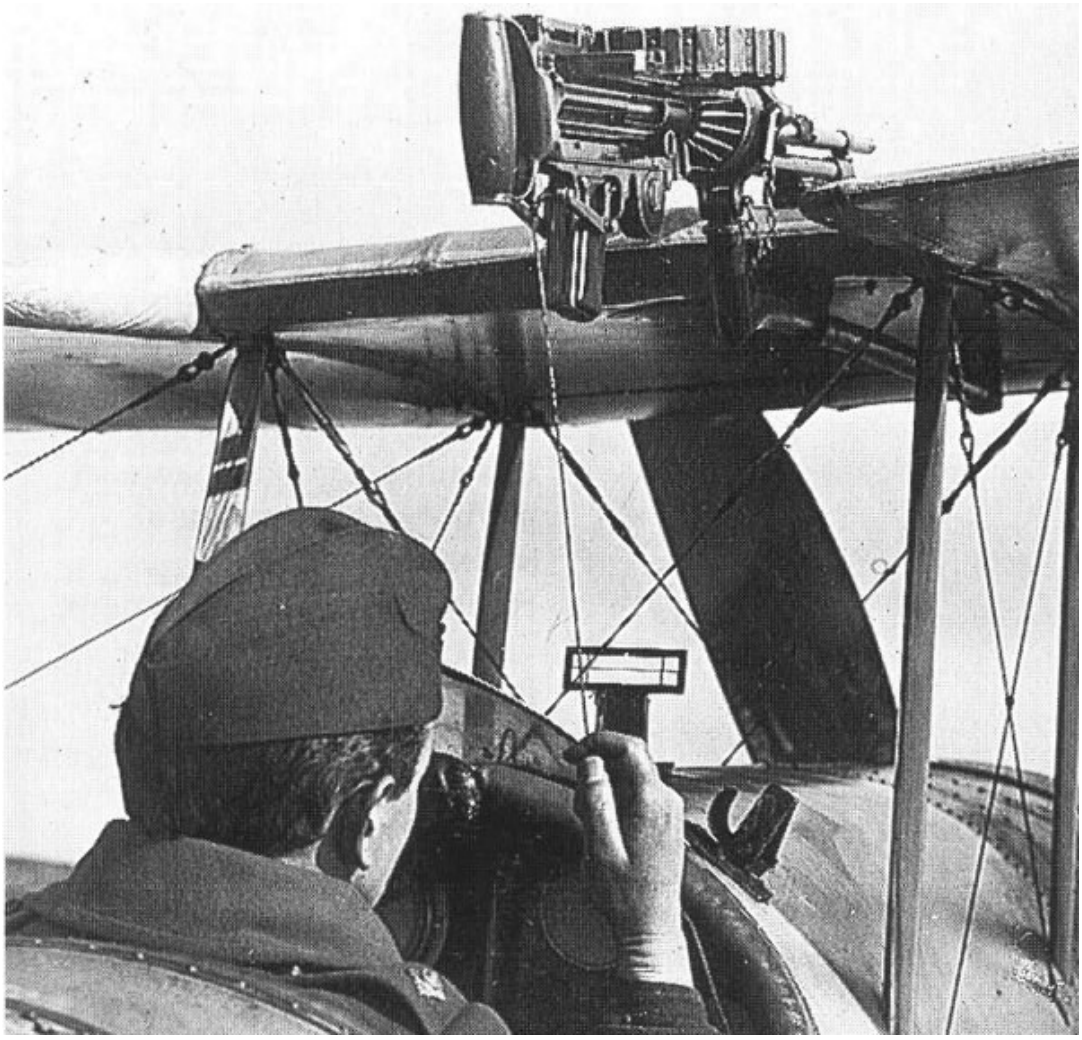
Before working with model parts, make sure that when removed from their sprues, all mould seams, sprue tags or mould 'flash' are removed from each part.

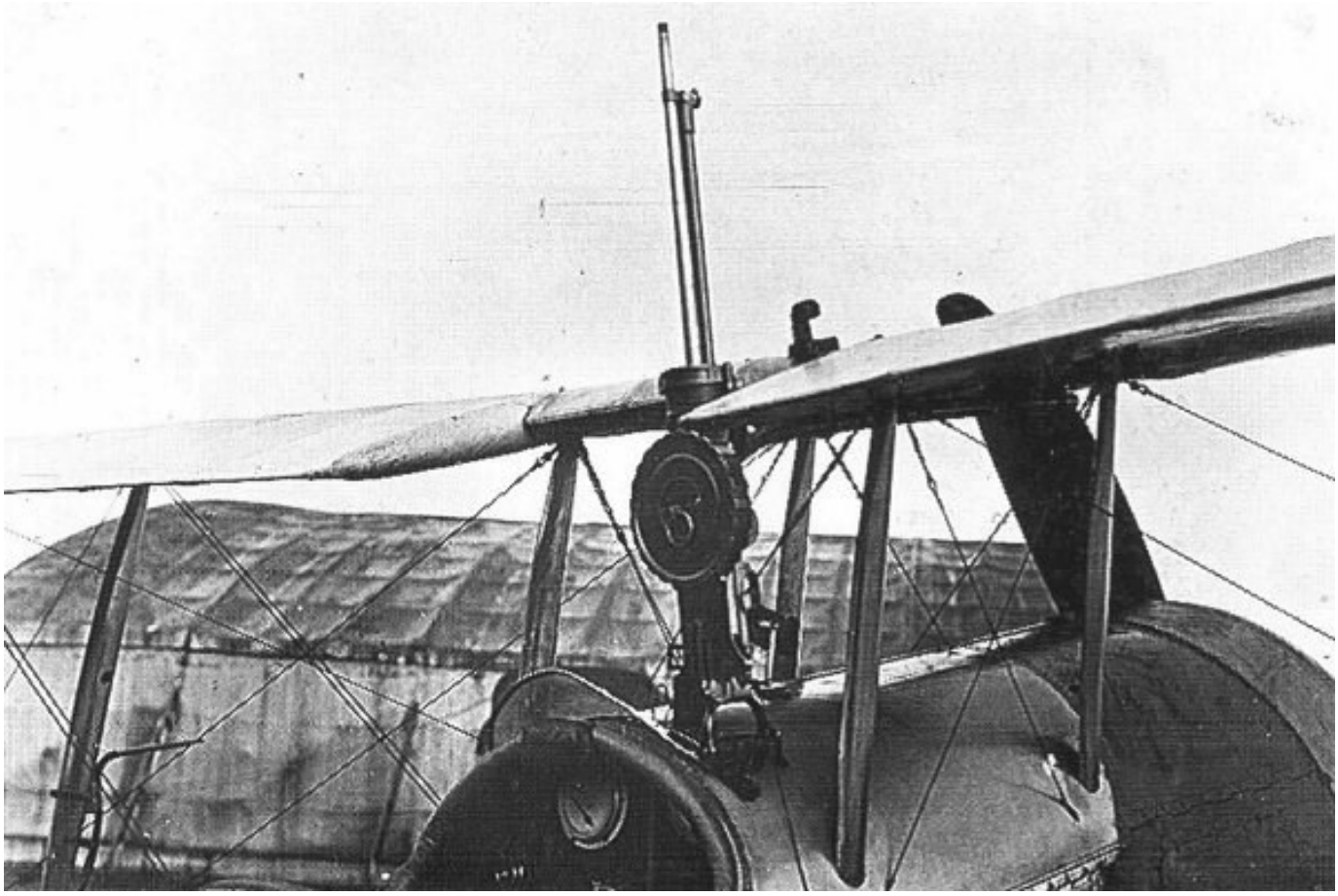
Gun mounting:

NOTE: ***The gun mounting I've chosen for this model of 1260 is an over wing type.*** *During its service life the Scout had various weapons fitted and in different locations on the aircraft. Rifles, Lewis machine guns and even duck guns were fitted to the fuselage sides to machine guns fitted on the fuselage decking in front of the pilot or over wing mounted guns.*
Different type of over wing gun mountings were used and either fixed or moveable. In the following photograph of 1260, it can be seen that it's over wing gun mount was possibly the Bristol Scout Lewis No.5 mounting Type1 - 'Christy pattern' dated March 1916.

This mounting allowed the weapon to be fired over the rotating arc of the propeller or fired vertically upward. It also allowed for the ammunition drum to be replaced, unlike the fixed mount version. The mounting was basically a single metal tube attached to the underside of the upper wing centre section, which was cut back to the wing rear spar (to allow the weapon to pivot over the cockpit). The gun and its mounting were off-set to the starboard side of the centre section. At the cockpit end of the tube was a pivot mounting in the upturned top of the tube. When fired over the rotating propeller the gun was locked in the horizontal position, but when fired vertically the hand grip of the machine gun was simply clipped into a fitting on the starboard side of the cockpit decking panel. The horizontally positioned weapon was fired using a pull cable from the gun down into the cockpit. When fired vertically it's probable the pilot could operate the trigger by hand.







Modifications required:

NOTE: *In order to have the over wing Lewis machine gun and its mounting, modification to the kit supplied upper wing and replacement of the kit supplied weapon to the type shown in the photographs is necessary.*
The replacement weapon is the 'Gaspatch' 1:32nd scale Lewis Mk.1 half stripped heatsinks (13-32052), less the supplied empty rounds collector bag, which was not fitted.

Upper wing:

NOTE: *The kit supplied upper wing (A1) requires the rear portion of the wing centre section to be removed to allow the weapon to be lowered to the cockpit for firing vertically or to replace the ammunition drum.*
Refer to the previous photographs for guidance.

Carefully cut out the area of the upper wing centre section, as shown in red in the following photograph. Chain drill across the wing and saw along the recesses. Leave enough behind the two cabane strut rear mounting plates to allow the cut rear edge to be shaped.

File or sand the three edges smooth then chamfer the tops and undersides to blend them together. Minor surface abrasions can be smoothed by sparingly applying liquid cement along the surfaces.

Gun mounting:

NOTE: *Refer to the previous photographs for guidance.*
The mounting was basically a single metal tube attached to the underside of the upper wing centre section, which was cut back to the wing rear spar (to allow the weapon to pivot over the cockpit). The gun and its mounting were off-set to the starboard side of the centre section. At the cockpit end of the tube was a pivot mounting in the upturned top of the tube.

The tube and rod used is from 'Albion Alloy's'.

***Refer to the following photograph** for visual guidance on the parts to be created.*

Underside tube mounts:

Drill the two mounting holes of 0.9 mm diameter into, **but not through,** the underside of the upper wing centre section. The holes should be to the rear of the location for the forward, starboard (right) cabane strut and midway between the centre rib tape and the strut locations.

Cut a length of 1.0 mm diameter Brass tube.

Using flat nose pliers or similar, flatten the two end of the tube.

Point mark centrally the flattened tube ends, then using the marks as guides, drill holes of 0.9 mm diameter through the tube.

Cut the flattened ends away from the tube and trim their lengths such that they fully locate into the pre-drilled holes with their holes aligned to each other. There should be a gap between underside of the wing and the tube.

Mounting tube:

Drill a hole of 0.9 mm diameter into, **but not through**, the underside of the upper wing centre section, forward from and aligned with the front mount location.

Cut a long length of 0.8 mm diameter Brass tube with a 0.6 mm internal bore.

Cut a long length of 0.5 mm diameter Brass rod.

Slide the rod through the tube. Sing rod inside the tube prevent the tube from crimping when being bent.

Anneal (soften) the brass tube/rod by applying heat, from a cigarette lighter or similar, along the its entire length.

Refer to the following photograph and bend both ends around a suitably sized round former. The front end should locate into the drilled hole with the rear end curved up behind the trailing edge of the cut-out section in the wing. Both bent ends must be aligned to each other.

Slide the tube through the holes in the created front and rear mounts and locate the mounts and the front end of the tube into their pre-drilled holes in the underside of the wing. Make sure the mounts are aligned and the gap between the wing and tube is constant. The rear end of the tube should be vertical to the wing when viewed from the rear.

Mark the rear end of the tube at the top surface of the upper wing.

NOTE: *During the following step, do not cut through the internal rod of the tube. Just roll cut around the tube.*

Remove the tube and carefully cut around the rear end of the tube at the mark made to remove that portion and expose the inner rod.

Carefully drill a hole of 0.4 mm diameter into the centre of the radial pivot on the bottom of the breech block of the ‘Gaspatch’ machine gun.

Carefully sand around the exposed rod to reduce its diameter to 0.4 mm.

Test fit the reduce end of the rod into the pre-drilled hole in the machine gun. The rod should fully locate into the hole.

Refit the mounts and tube to the underside of the upper wing.

Locate the machine gun on the rod end of the tube and check the weapon is parallel with the upper wing with a gap between the weapon and wing. If necessary, gently bend the rod to achieve the correct angle for the mounted weapon.

Over wing gun latch:

With the weapon positioned parallel with the wing rib tapes, point mark the top surface of the upper wing, forward from the barrel heat sink and just to the port (left) of the centre line of the gun barrel.

Using the point mark as a guide, drill a hole of 0.8 mm diameter into, **but not through**, the top surface of the upper wing.

Cut a length of 0.7 mm diameter Brass tube.

Using flat nose pliers or similar, flatten one end of the tube.

Anneal (soften) the flattened end of the tube by applying heat, from a cigarette lighter or similar.

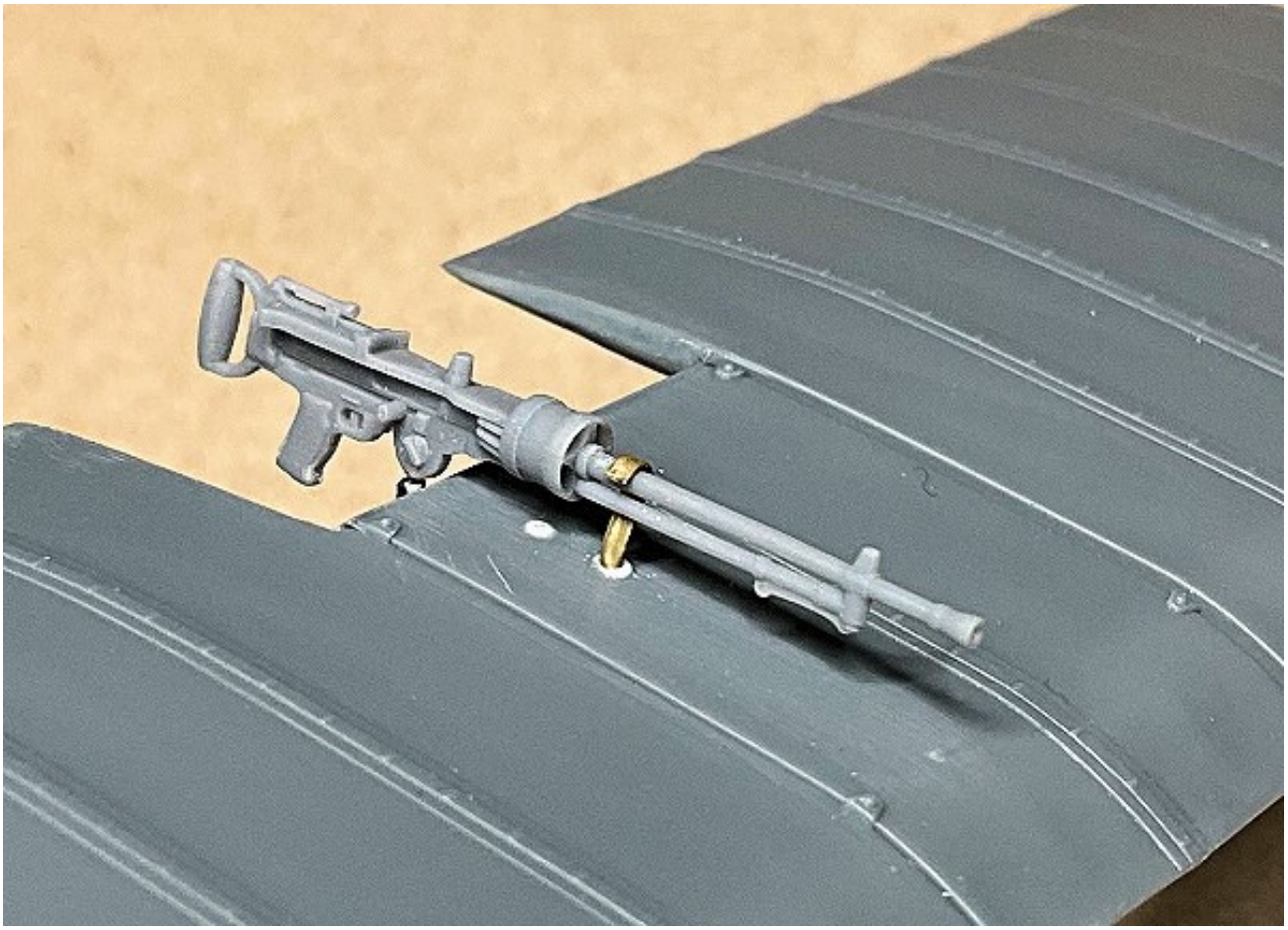
Bend the flattened end out slightly.

Using a 0.8mm diameter rod as a former, bend the top end of the flattened tube around the rod to form a semi-circle.

With the weapon located in the upper wing, test fit the rounded portion of the tube into its pre-drilled hole in the wing. Note how much of the tube needs to be removed to allow the curved top of the tube to locate over the barrel of the weapon.

Cut the required amount from the tube.

Test fit the tube to check the fit over the barrel.



Using thin CA adhesive, secure the ammunition drum onto it locating spigot on the machine gun.

Painting:

Lewis machine gun:

Airbrush with ‘Tamiya’ Gloss Black (X1) or similar.

Airbrush with ’Alclad’ Gunmetal (ALC120) or similar.

NOTE: *Dry brush by using a domed and soft brush, which has a very light dusting of paint. Dry off paint on the brush on an absorbent paper before dry brushing the part.*

Dry brush with ‘Mr. Colour’ Super Iron 2 (203) or similar.

Brush paint the handle and grip with ‘Tamiya’ Hull Red (XF9) or similar.

Brush paint the grab handle on the ammunition drum with ‘AK Interactive’ Brown Leather (AK3031) or similar.

Brush paint the ammunition rounds cases in the underside of the ammunition drum with ‘Mr. Colour’ Brass (219) or similar.

Sponge ‘Tamiya’ Weathering Master (Set B - Soot) around the machine gun muzzle.

PART 10
PREPARATION FOR INTERNAL RIGGING

PART 10 - PREPARATION FOR INTERNAL RIGGING

NOTE: *Refer to Part 6 (Rigging) of this build log for more information. At this stage of the build it's best to prepare as much of the internal rigging as possible, as some access will be restricted when the parts are assembled.*

Preparation:

NOTE:

Refer to Pages 5, 6 and 7 of the kit instruction manual. ***Before working with model parts****, make sure that when removed from their sprue gates, all mould seams, sprue tags or mould 'flash' are removed from each part.*

Remove the following parts from their sprue gates:

Cockpit side frames D25 and D30

Crankshaft mounting plate B3

Cross member A4 and A5

Rear cross members A8 and A9

Control column D12

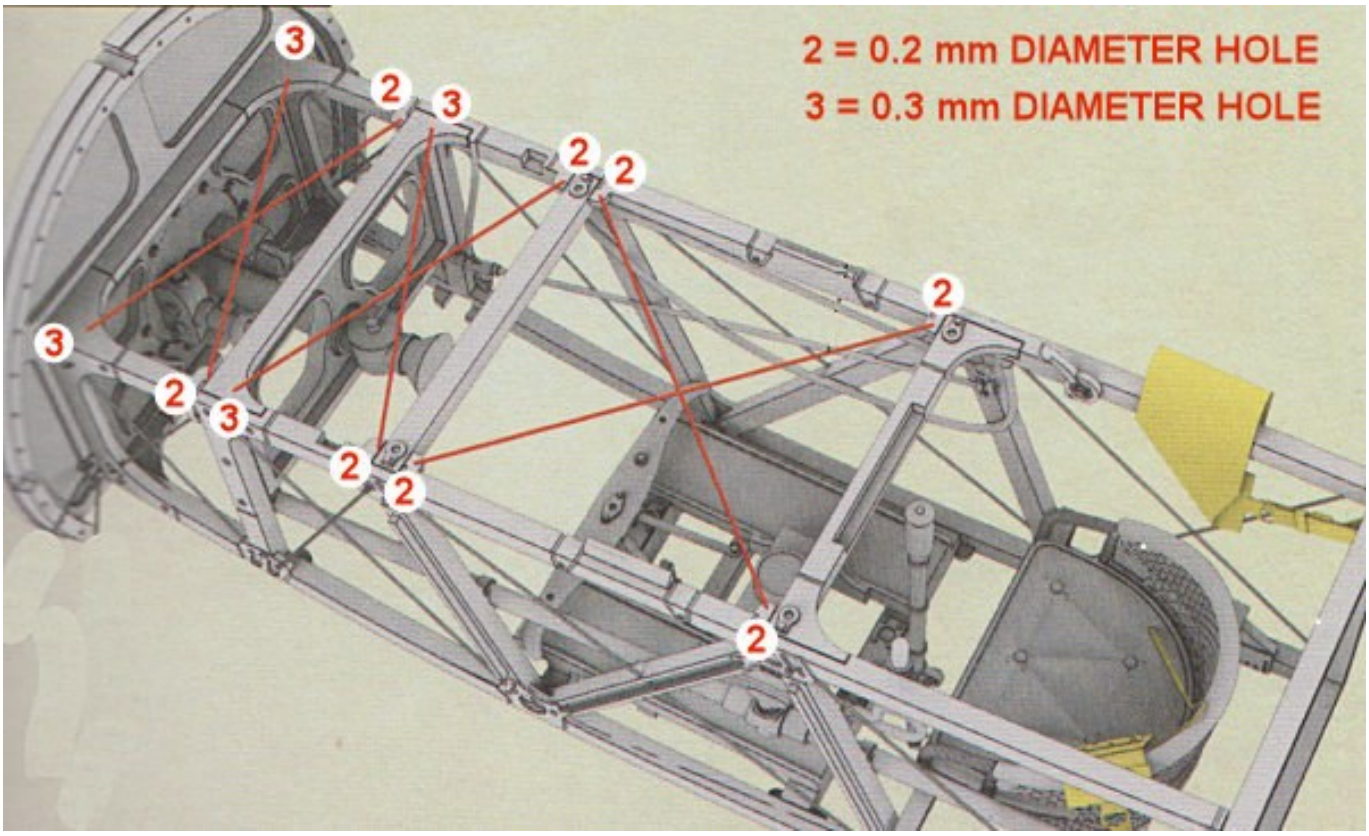
Rudder bar D13.

Cockpit frames:

The cockpit parts requiring drilling are side frames D25 and D30 and the crankshaft mounting plate B3.

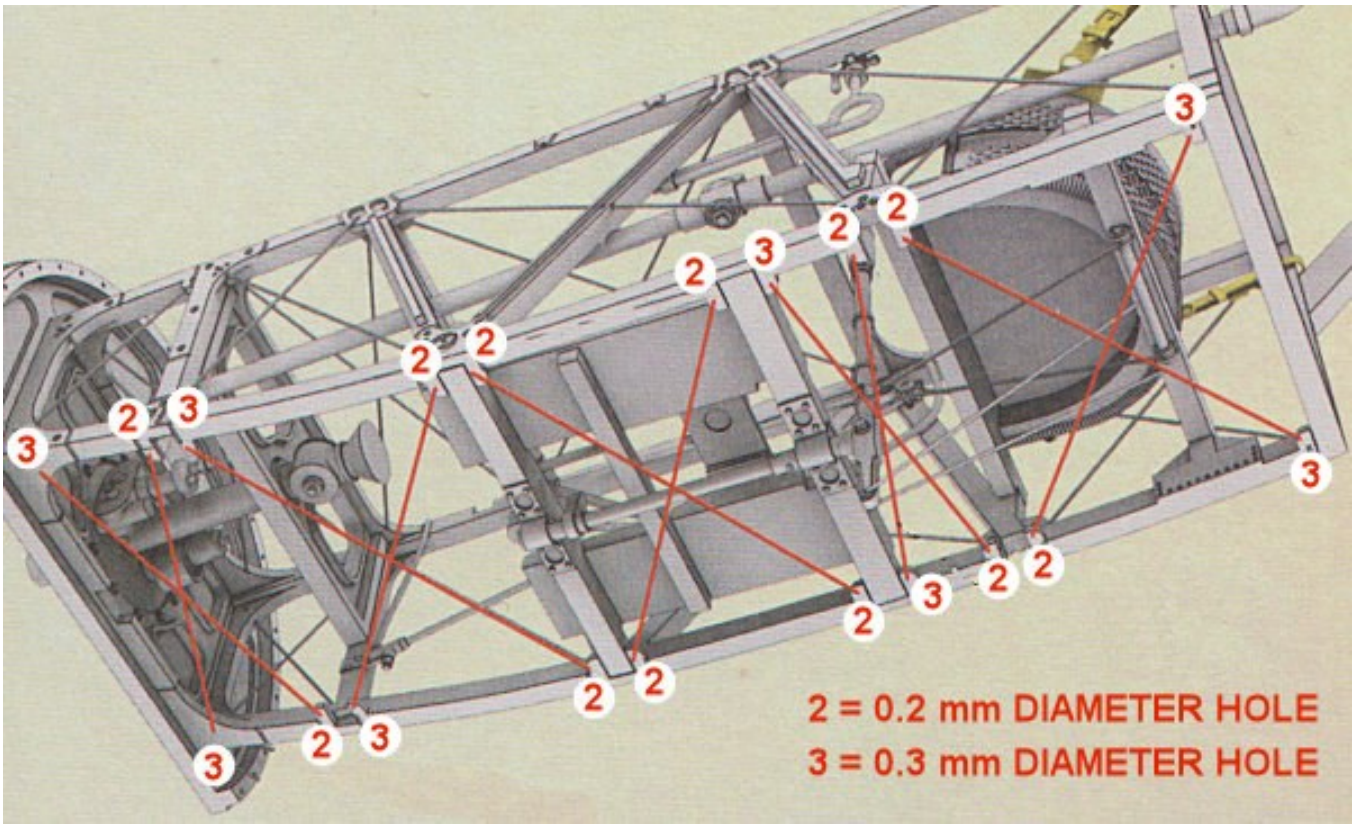
Refer to the following illustrations and shown using the pre-moulded recesses as guides, drill holes of 0.3 mm and 0.2 mm diameter where indicated.

Cockpit assembly - top view



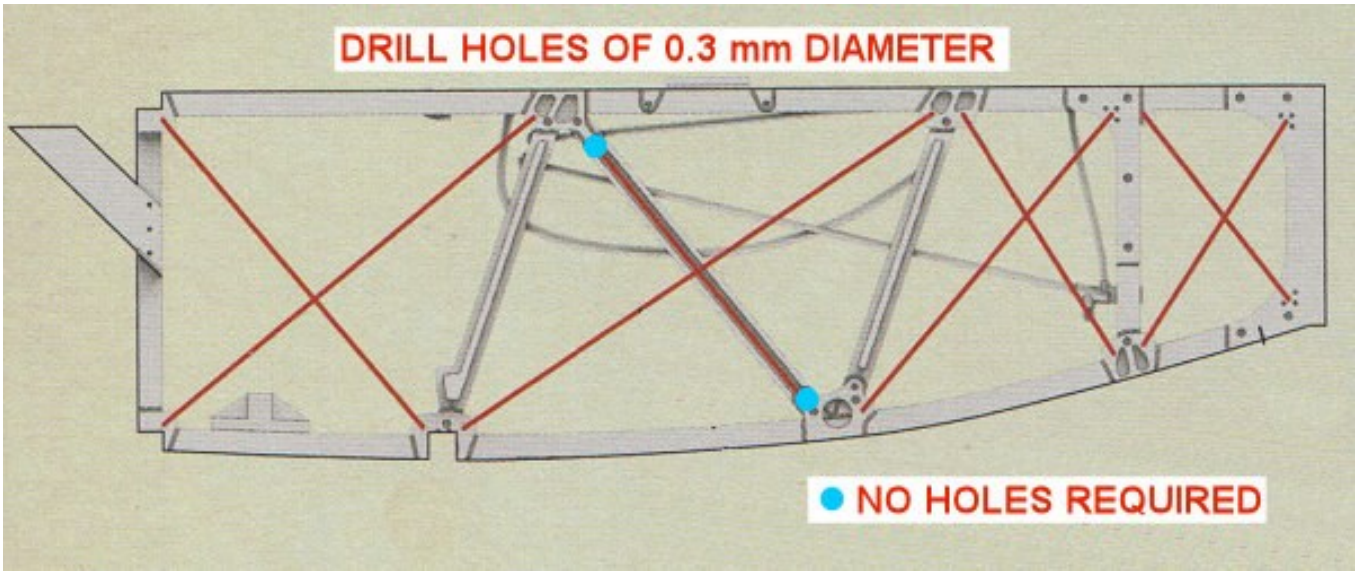
The cockpit parts requiring drilling are side frames D25 and D30.

Cockpit assembly - underside view

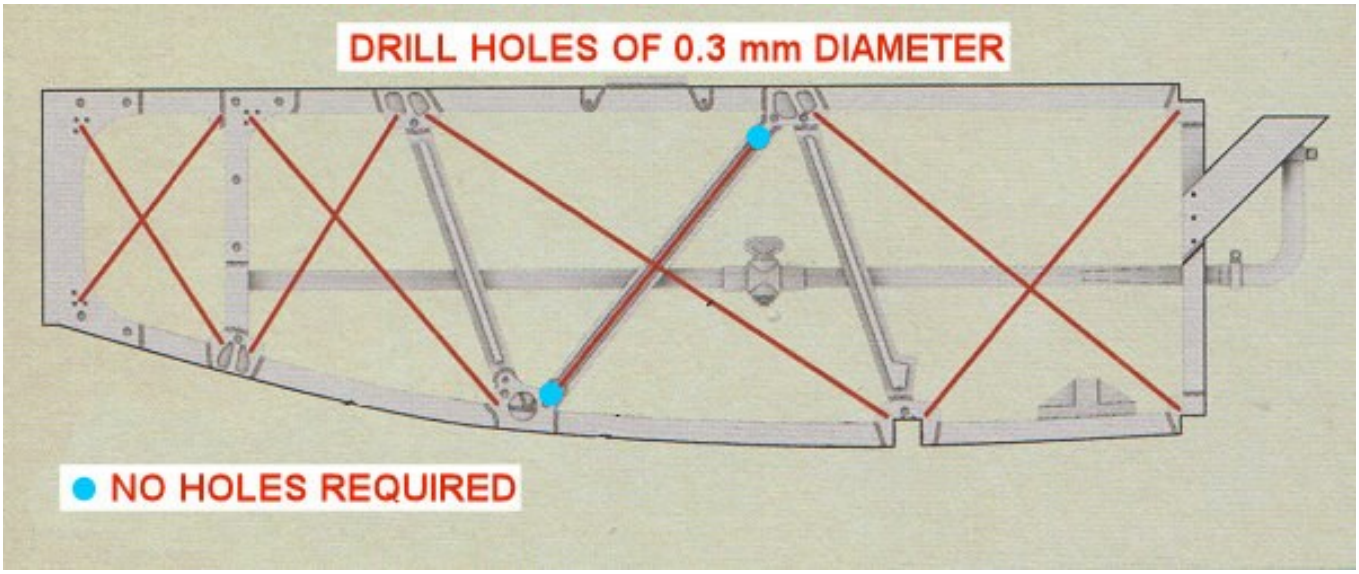


Cockpit side frame D25

NOTE: *The blue marks on illustrations indicate no drilled holes required, as the rigging behind those struts will not be seen on the completed model.*

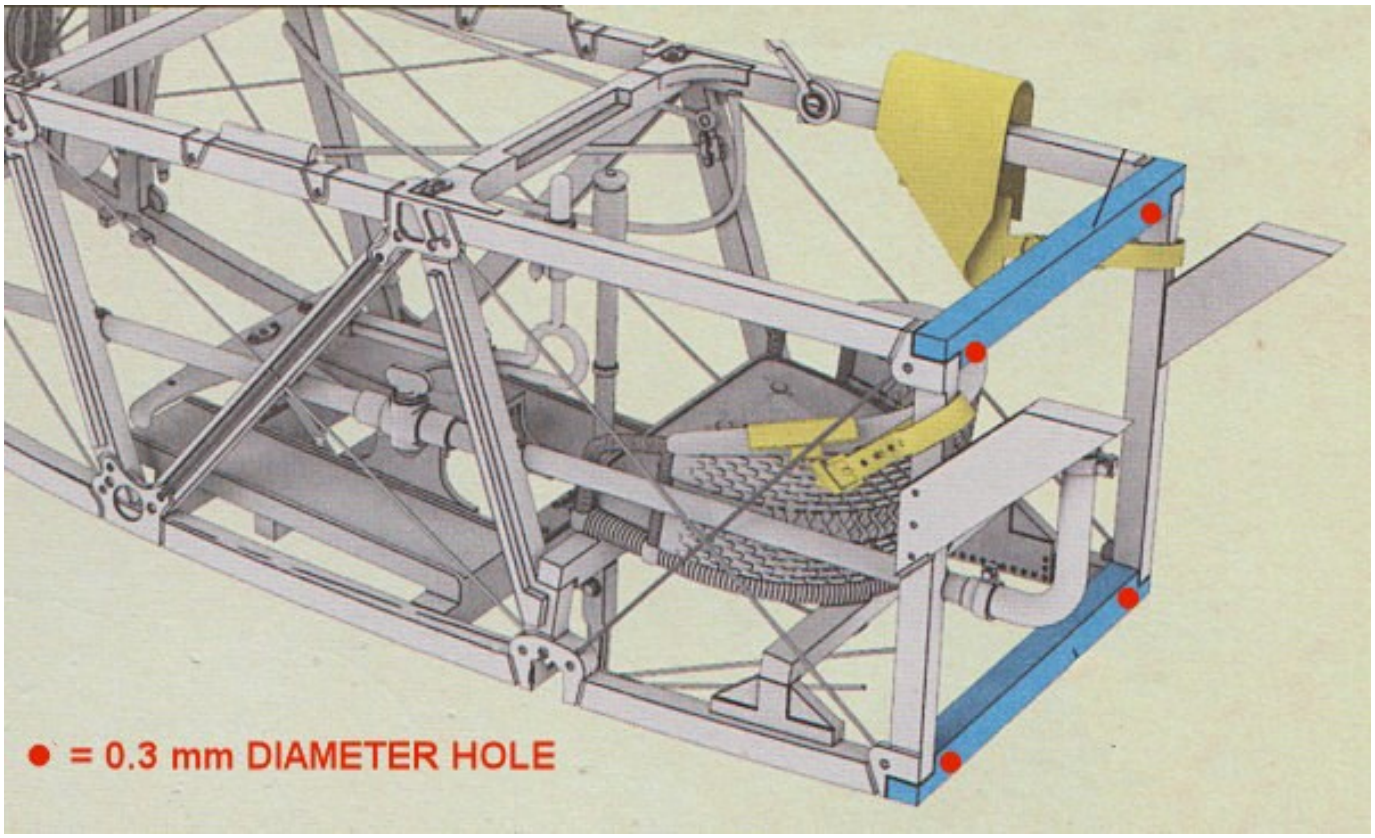


Cockpit side frame D30



NOTE: *The rear cockpit frame behind the pilot should be cross braced. However, the kit does not make provision for this rigging.*

Drill holes through the rear cross members A8 and A9 as indicated in the following illustration.



Rudder bar:

NOTE: *Refer to page 6 of the kit instruction manual. The rudder control cables were attached to the rear face of the rudder bar with turnbuckles.*

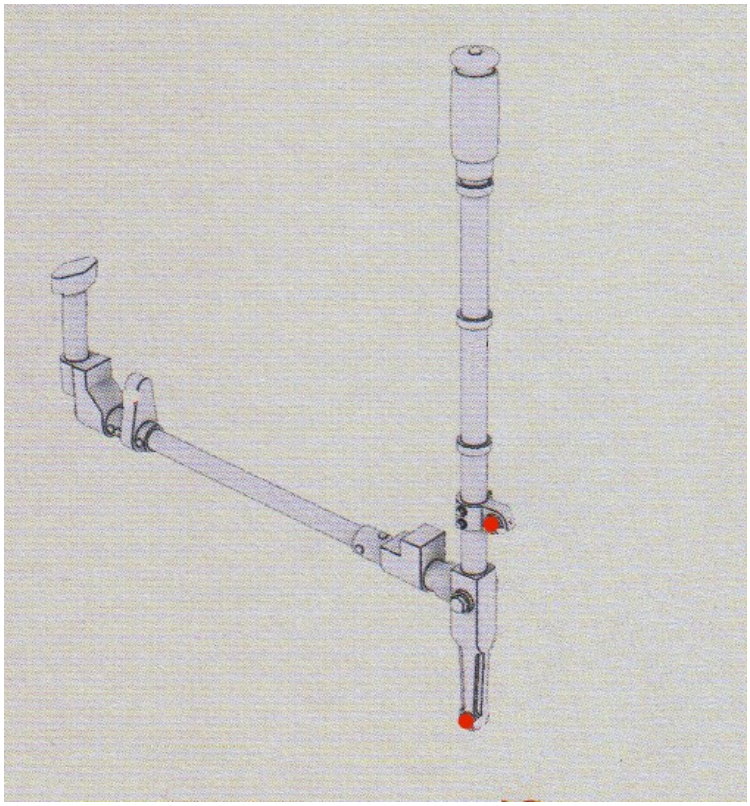
Drill holes of 0.3 mm diameter into, **but not through**, the rear face of the rudder bar D13 and aligned to the pre-moulded ‘bolts’ on the top of the bar.

Using thin CA adhesive, secure a ‘Gaspatch’ 1/48th scale metal turnbuckle (one ended) into each of the pre-drilled holes, making sure they are parallel to each other.

Elevator control:

NOTE: *Refer to page 6 of the kit instruction manual. Elevator control cables were fitted to the pilots control column, at the bottom and above the aileron torsion bar.*

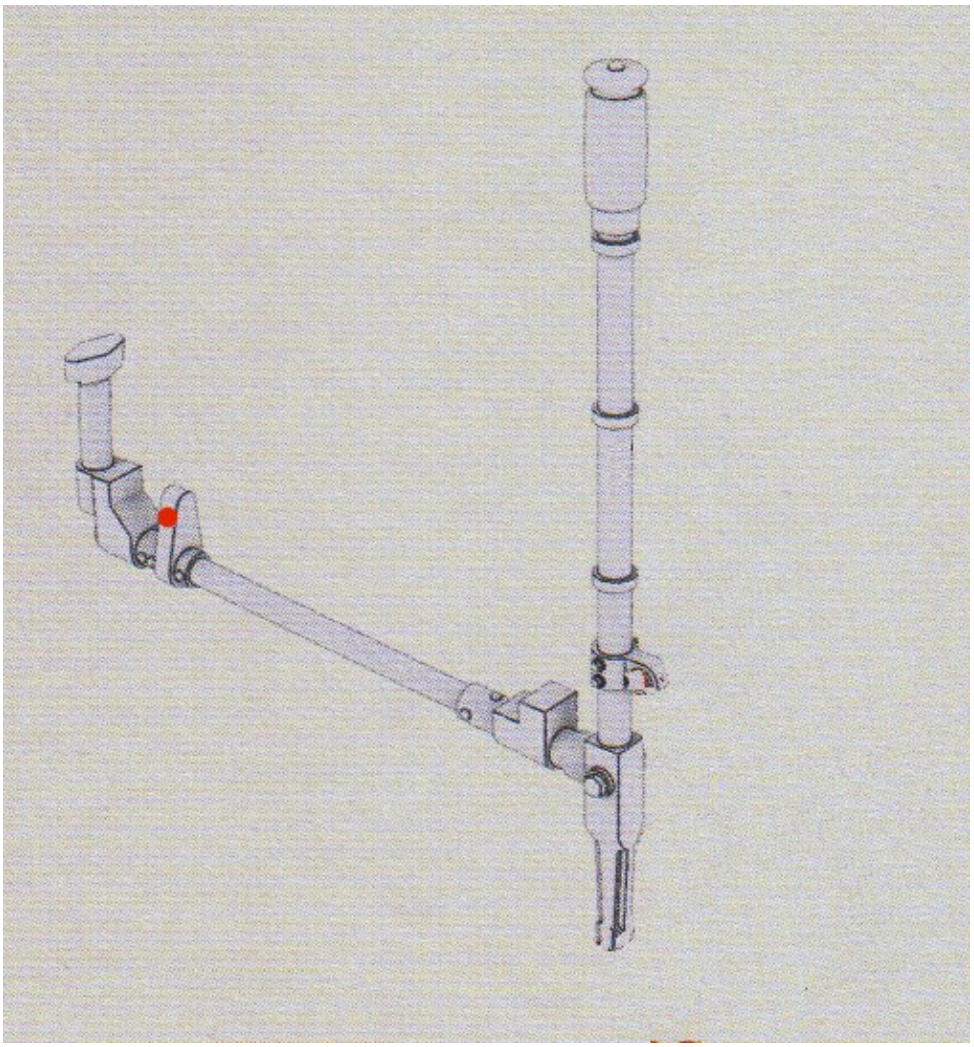
Drill holes of 0.2 mm diameter through the control column D12 as indicated in the following illustration.



Aileron control:

NOTE: *Aileron control cables were fitted to the a bell crank lever on the control column torque tube. This is not accounted for in the kit.*

Drill a hole of 0.2 mm diameter through the bell crank lever as indicated in the following illustration.



PART 11
FUSELAGE CONSTRUCTION

PART 11 - FUSELAGE CONSTRUCTION

NOTE:

When cementing large kit parts, I use 'Revell' Contacta Professional cement (39604). This is a thicker liquid cement, which takes longer to fully set, but does provide a stronger bond between larger kit parts. 'Tamiya' liquid cement is used for smaller parts.

Before working with model parts, make sure that when removed from their sprues, all mould seams, sprue tags or mould 'flash' are removed from each part.

Refer to the relevant pages in the kit instruction manual.

My sequence of building this model may sometimes seem disjointed, but this is mainly due to incorporating modifications as I progress through the build.

Preparation:

NOTE: *Steps in the kit instruction manual not required for this particular build of Scout 1260 are:*

Steps 3, 21, 22, 26, 28, 36, 37, 39 and 40.

Fuselage halves:

For this particular model build, carry out the following steps in the instruction manual for fuselage halves C6 and C7:

Page 9 step 22 - disregard (not required).

Page 9 step 23 - remove the mounting stub for the machine gun and fill the small locating hole above it.

Page 9 step 24 - **only** drill the rigging holes (0.5 mm diameter).

Page 9 step 25 - **only** drill the rigging holes (0.5 mm diameter).

Page 10 step 26 - disregard (not required).

Page 10 step 28 - disregard (not required).

For this particular model build the fuselage rear decking part C4 (page 12) will be used. Therefore, disregard part C5 and B7 (not required).

For this particular model build the fuselage under shield A13 does not required the supplied bomb rack/bombs. Therefore, disregard drilling the two holes at page 12 step 39.

For this particular model build, disregard page 13 step 40 (not required).

Modifications:

Pilots seat:

NOTE: *The supplied pilots seat and cushion parts (A10, A11, C9 and C10) are of good quality. However, I chose to replace them with a seat from the 3D printed 'Gaspatch' British wicker seat (22-32249) set. This requires modification of the kit seat base A10.*

Place the seat base A10 upside down (cushion down) onto a flat sanding base and sand away the cushion to expose the open centre of the seat. Make sure the seat is kept level when sanding in order to achieve a flat surface.

Cut away the support base from the 'Gaspatch seat and scrap away any residual supports from under the seat.

Using thin CA adhesive, secure the seat onto the A10 seat base.

Cut away the 'Gaspatch' cushion from its support base and scrap away any residual supports from the edge of the cushion.

Engine access panels:

NOTE: *The Scout had at the forward sides of the fuselage, an access panel that was used to gain access into the forward cockpit from both sides of the fuselage. These panels opened upwards with two separate hinges on the top edge and were secured closed with two latches at the bottom edge.*
The kit fuselage halves have these detailed panels pre-moulded. Unfortunately, the panels cover all of the cockpit internal detail.
Therefore, I chose to modify the panels on both fuselage halves in the open position, allowing visibility of the cockpit detail.

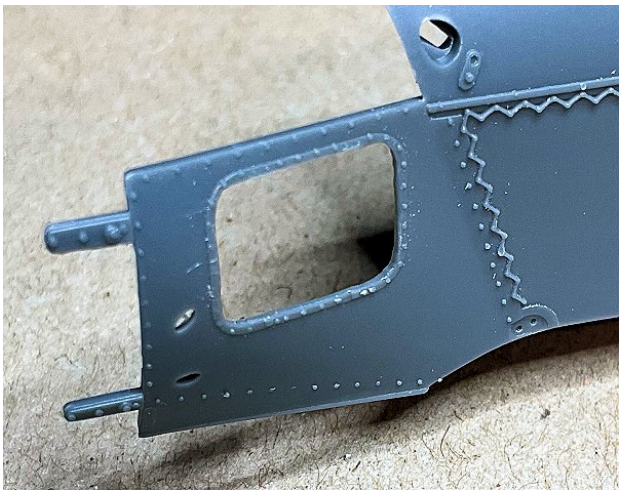
Using a 0.5 mm diameter drill, chain drill through the panels following the inside of the panel rivet lines.

Using a thin scriber, carefully scribe through the holes until the panels can be removed from the fuselage halves.

Using the inner edge of the fuselage outer rivet lines, carefully file or scrape around the drilled edge to create the panel openings.

Using a sharp curved scalpel blade to carefully scrape away the inside surface of the fuselage halves around the panel openings. The intention is to reduce the thickness of the fuselage halves to represent panel thickness more ‘in-scale’.

Minor surface imperfections can be smoothed by applying liquid cement sparingly over the affected areas.



Cut from 0.2 mm thick plastic card the shape of the inner panels that were removed.

NOTE: *During the following step, apply liquid cement **sparingly** (to avoid melting the thin plastic). Cement the strip to one straight edge then bend the strip around the corner and cement the next straight edge etc.*

Using 0.5 mm wide plastic strip, carefully cement the strip around the edges on one side of the plastic card panels.

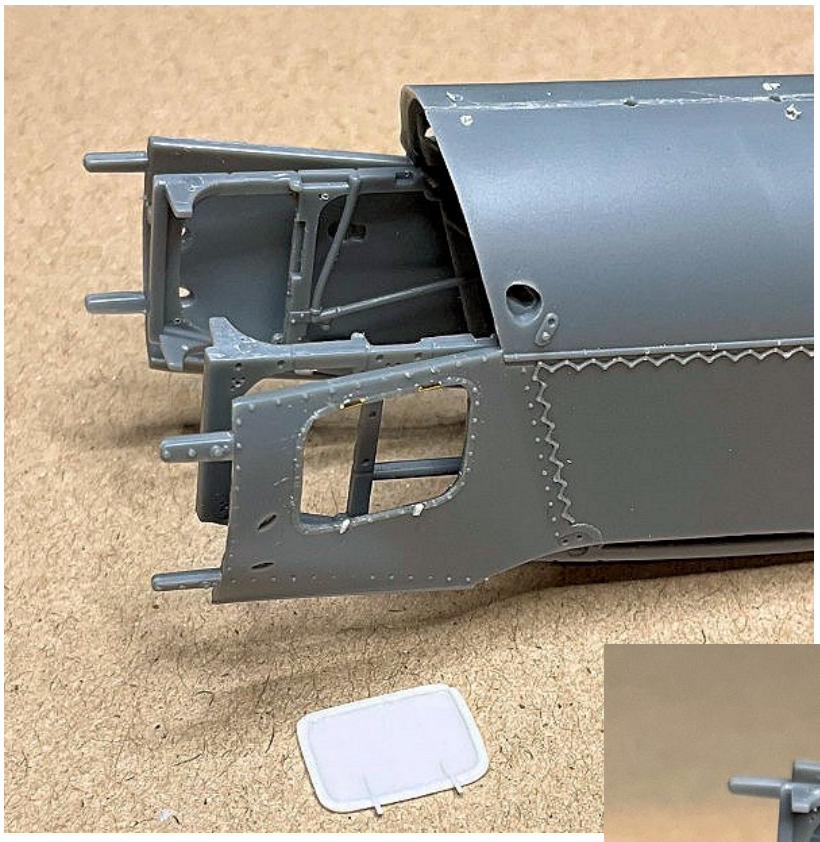
Cut four short lengths of 0.3 mm diameter Brass tube, such as that from ‘Albion Alloy’s’ MBT03 or similar.

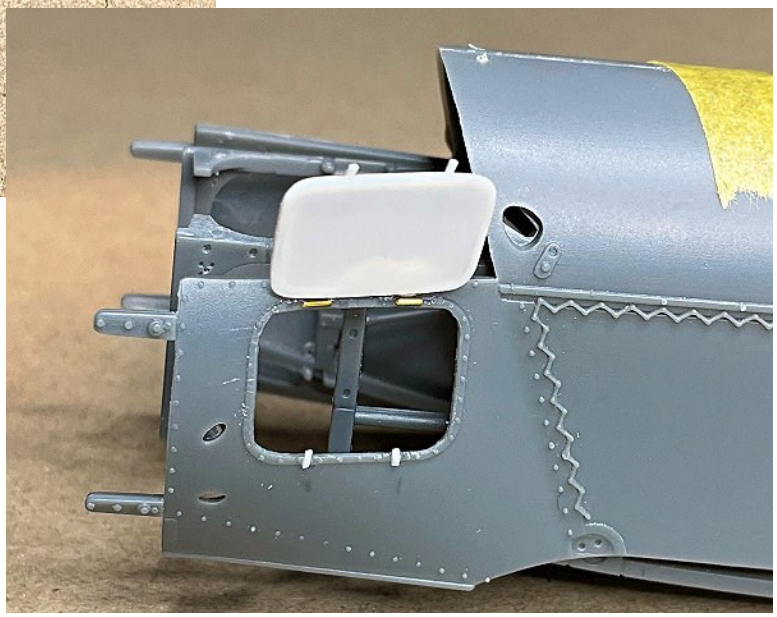
Using thin CA adhesive, secure two tubes onto the top edge of the panel opening in the fuselage halves (to represent the two panel hinges).

Cut eight short and thin strips of 0.2 mm thick plastic card.

Cement two strips onto the bottom edge of the panel openings in the fuselage halves and aligned with the added tubes.

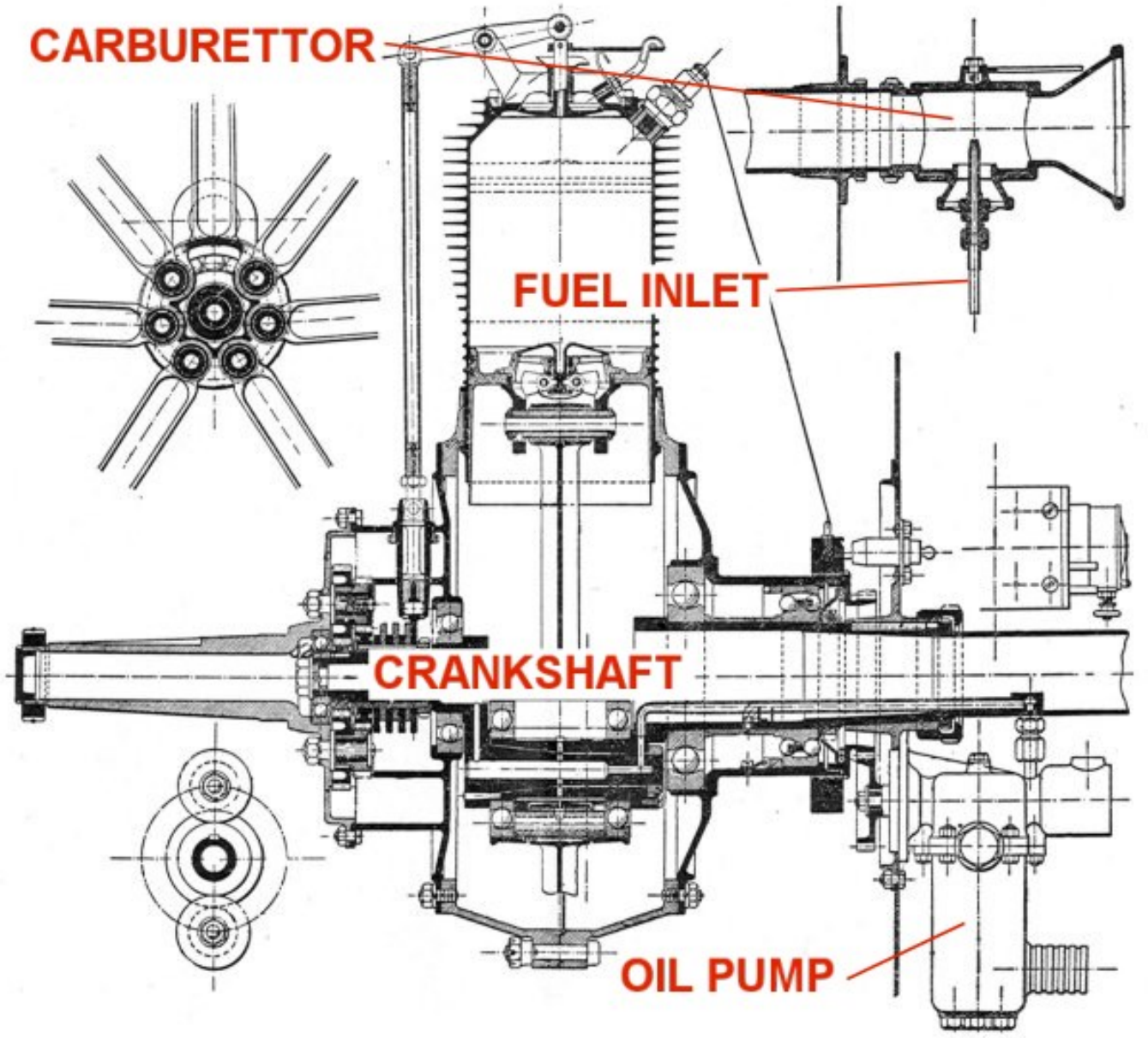
Cement two strips onto the bottom edge of the panels and aligned with the added tubes on the fuselage.



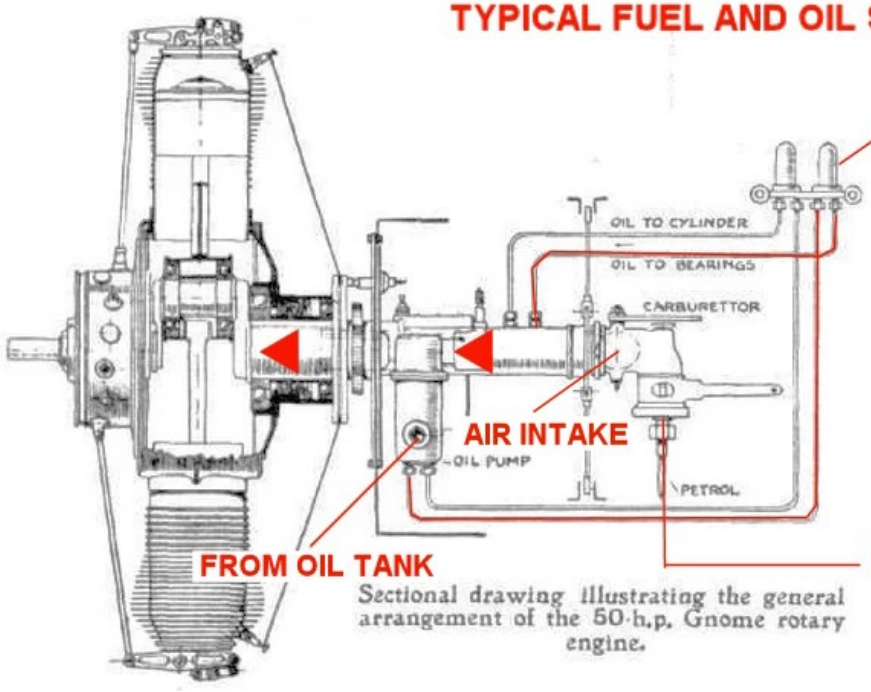


Panel temporarily held in position.

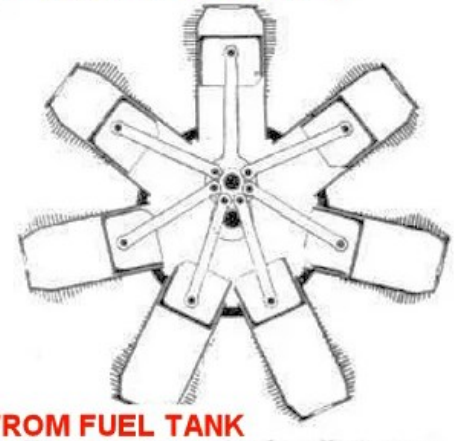
Engine fuel and oil supply:



TYPICAL FUEL AND OIL SUPPLY



Sectional drawing illustrating the general arrangement of the 50-h.p. Gnome rotary engine.



Diagrammatic sketch illustrating the connections between the pistons and the crank-shaft of the Gnome rotary engine.

Typical oil pump

Engine oil and fuel supply:

NOTE: *Refer to the previous illustrations.*
Engine lubricating oil was contained in a tank, located inside the fuselage at the rear of the pilots cockpit. A delivery pipe from the tank was routed along the port (left) side frame of the cockpit, terminating at the vertical frame member opposite the rear end of the engine crankshaft. A pipe was connected between the end of the delivery pipe and the oil pump, located on the rear of the engine bulkhead. Oil from the pump was fed through a pipe to the oil pulsometer, located on the cockpit port side frame. The pilot monitored the lubrication of the engine by the pulses of oil shown in the bowl of the pulsometer. The oil was then returned through a pipe to the hollow engine crankshaft. The pumped oil supply mixed with the air/fuel mixture from the carburetor and was sucked into the engine to lubricate the moving parts.

Engine fuel was supplied from the fuel tank, which was located in the fuselage at the top, rear of the engine bulkhead. A delivery pipe from the tank was routed down the cockpit starboard (right) side frame to a fine control valve, which was operated by a rod connected to a controller, located below the cockpit instrument panel. A pipe from the fine control valve was connected to the carburetor, which was fitted in the cockpit end of the crankshaft and operated by the pilots control lever. The crankshaft was hollow and its cone shaped end acted as the air intake from inside the cockpit. The air and fuel mixture was sucked through the crankshaft by the rotating engine and was routed to the tops of the engine cylinders through valves.

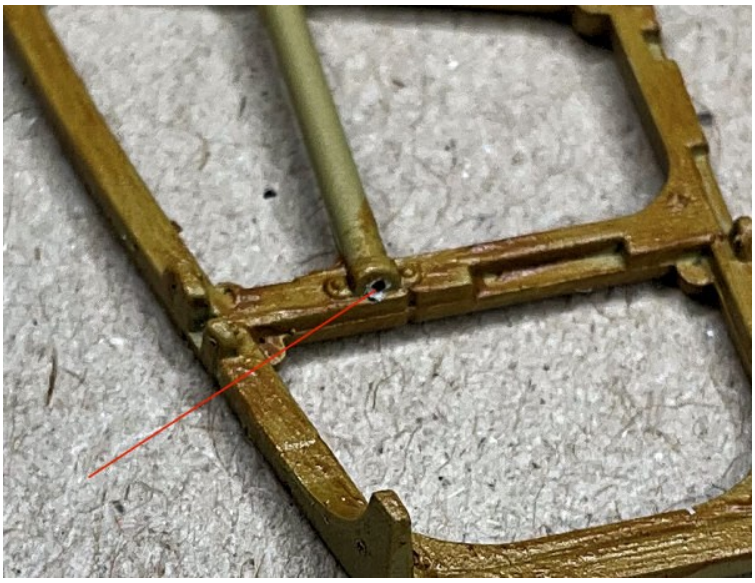
Engine crankshaft:

To represent the air intake at the cockpit end of the engine crankshaft (E3), first drill a hole of 1.0 mm diameter centrally into the cone shaped air intake at the cockpit end of the crankshaft. Then carefully open up the intake by using appropriate sized drills to achieve the chamfered intake.

To represent the fuel inlet connection on the carburetor, drill a hole of 0.5 mm diameter into the underside of the carburetor body (not the pre-moulded lever side).

To represent the oil inlet connection on the crankshaft, drill a hole of 0.5 mm diameter centrally into, **but not through**, the top side of the crankshaft (the side with the pre-moulded lever on the carburetor).

Drill a hole of 0.5 mm diameter centrally into the engine end of the oil delivery pipe on the cockpit port side frame (D30).



Fuselage underside locators:

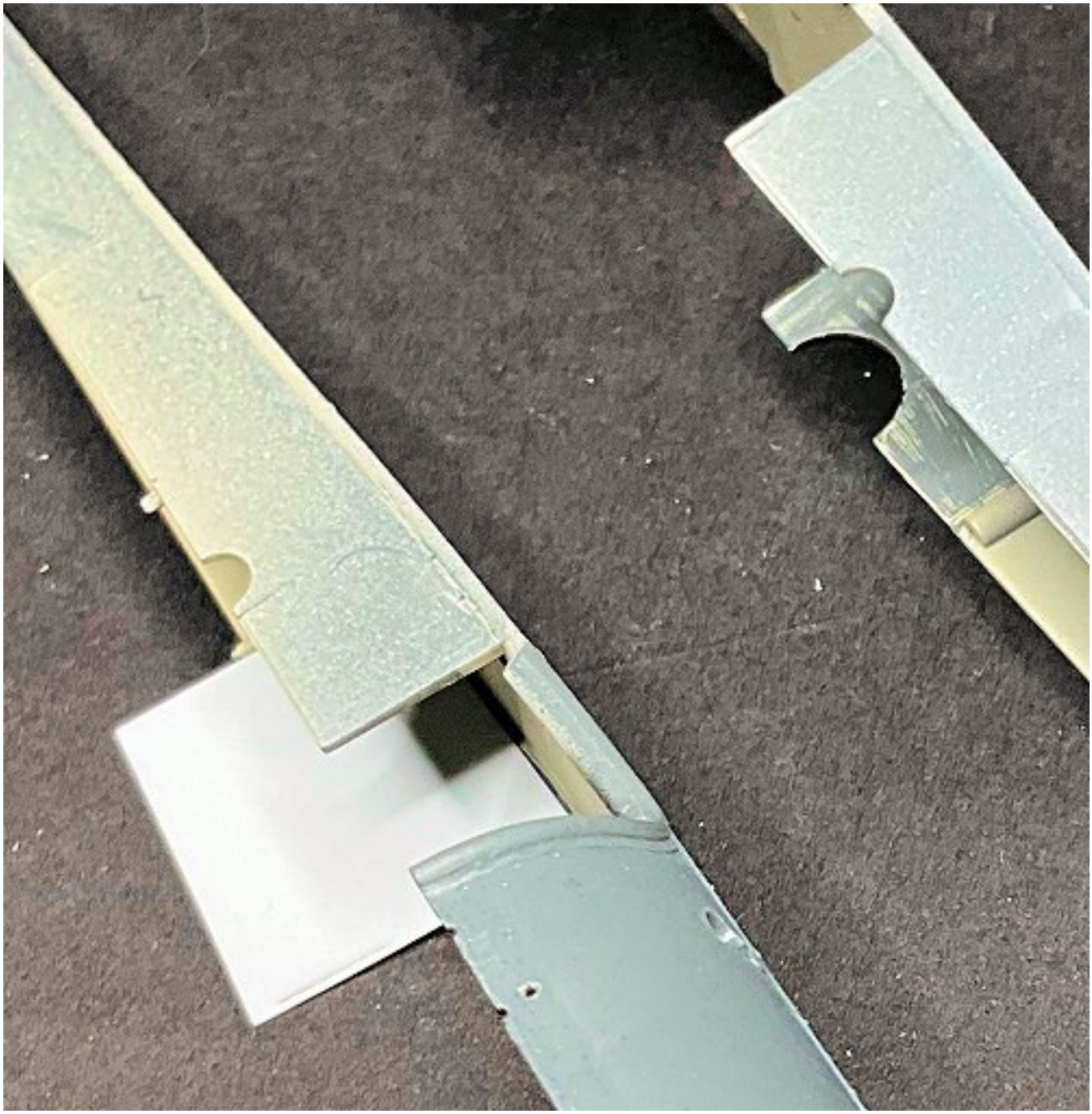
NOTE: *The fuselage underside panel (C8) locates into the joined fuselage halves with two circular rings. As the rear of the cockpit is not closed off, the forward and larger locating ring will be visible.*

Cut a piece of 0.3 mm thick plastic card or similar.

Cut one side of the card such that it fits onto the inside bottom of the left fuselage half. The card should rest against the ridge in the fuselage and be level with the front edge of the fuselage bottom (covering the half of the circular locator).

Cut the opposite side of the card such that when located, the two fuselage halves join fully without and joint gaps.

Cement the card in position on the left fuselage half.



Assembly:

Cement the oil pump (E5) into its locating recesses in the rear of the engine bulkhead (B14).

Cement the magneto (E4) into its locating recesses in the rear of the engine bulkhead (B14).

Cement the fuel tank breather (D22) into its locating hole in the top front of the fuel tank panel (B15).

Painting:

NOTE: *The photo-etch seat belts will be painted later in the fuselage build as they need to be formed over the seat before painting.*

Airbrush prime the listed parts with a grey primer, such as 'AK Interactive' Grey (AK758) or similar:

Engine bulkhead B4 with fitted magneto E4 and oil pump E5 (inner side only)

Cockpit side frames D25 and D30

Pulsometer F1
Crankshaft E3
Cross member A4
Control column D12
Floor boards A12
Rudder bar D13
Modified pilots seat assembly A10 with ‘Gaspatch’ seat.
Cross member A5
Rear cross member A8 and A9
Instrument panel B2
Fuselage halves C6 and C7 (inner surface only)
Fuel gauge breather C1
Fuselage top cover C4 (vertical bulkhead on the front only)
Oil tank cap D16
Fuselage bottom cover C8 (inner surface only).

Mask off the inner surfaces of the fuselage halves, leaving the front ’metal panel’ area and underside of the top decking panels exposed.

Airbrush prime the following with black, such as ‘Tamiya’ Gloss Black (X1) or similar:

Fuel tank panel B15 with fitted breather D22 (inner surface only)
Undershield A13 (inner surface only)
Cockpit centre section of the lower wing B1.
Crankshaft mounting bulkhead B3
Exposed areas of the fuselage halves (C6 and C7)
Created fuselage access panels.

Airbrush the black primed parts with ‘Alclad’ Duraluminium (ALC-102) or similar.

Remove the masking from the fuselage halves.

Mask off the Duraluminium painted inner surfaces of the fuselage halves.

Airbrush the following parts with ‘Tamiya’ Deck Tan (XF55) or similar:

Fuselage halves C6 and C7 (inner surface only)
Fuselage bottom cover C8 (inner surface only).

Remove the fuselage masking.

Applying wood effect:

The following parts required application of wood effect. Airbrush or brush the following parts with 'Tamiya' Dark Yellow (XF60) or similar:

Engine bulkhead B14 wood (refer to Fig.1 in the instruction manual)

Cockpit side frames D25 and D30

Cross member A4

Floor boards A12

Rudder bar D13

Modified pilots seat base A10

Cross member A5

Rear cross member A8 and A9

Instrument panel B2

Fuselage top cover C4 (vertical bulkhead on the front only).

NOTE: *The wood effect for this model was created using 'Windsor & Newton' Griffin (Alkyd) Raw Sienna paint.*

Brush a covering coat of the 'Windsor & Newton' Griffin Alkyd **Raw Sienna** paint over the wood parts.

Leave the oil paint to settle for several minutes.

Decant a small amount of White Spirits into a suitable dish.

Dip a flat oil brush into the White Spirit then wipe the brush on a sheet of kitchen roll (which should not deposit any fibres in the oil paint) to remove most of the White Spirit.

Brush the oil paint in the required direction and keep wiping the brush on the sheet to remove residual oil paint.

Repeat dipping and wiping the brush in the White Spirits and brushing the oil paint until the desired density and effect is achieved.

Leave the oil paint to fully dry. It should be touch dry in an hour or so and fully dry within 12 hours.

Detail painting:

NOTE: *Refer to the relevant illustrations in the kit instruction manual for guidance.*

Airbrush or brush paint the following parts with the paints listed:

'Mr. Colour' Copper (215) or similar:

Oil supply pipe, pulsometer pipes (Fig.6).

'**Tamiya' Rubber Black (XF85) or similar:**

Frame on engine bulkhead (Fig.1), magneto body (Fig.1), control column and torque tube (Fig.2), rudder bar struts (Fig.2), compass body (Fig.2), metal brackets and fittings on cockpit side frames (Fig.6), ends of oil supply pipe (Fig.6).

'Tamiya' White (XF2) or similar:

Face of the compass (Fig.2), map board on the instrument panel (Fig.5).

'Mr. Colour' Brass (219) or similar:

Cylinder on the Magneto (Fig.1), compass top ring (Fig.2), switch, frame and fuel level gauge on instrument panel (Fig.5), stop cock on oil supply pipe (Fig.6), base of the Pulsometer (Fig.6).

‘Mr. Colour’ Stainless Steel (213) or similar:

Engine bulkhead (Fig.1), oil pump (Fig.1), foot boards (Fig.2), instruments on instrument panel (Fig.5), crank shaft (Fig.6), tubing on starboard (right) cockpit side frame and carburetor control lever (Fig.6), fuel supply pipe clamps of port (left) cockpit side frame (Fig.6).

‘AK Interactive’ British Uniform (AK3081) with Leather (AK3031) highlights:

Grip on top of control column (Fig.2), padded rim around the pilots seat (Fig.3).

‘AK Interactive’ Light Wood filter (AK261) - wicker of the pilots seat (Fig.3).

Pilots seat cushion:

Base coat with **‘Windsor & Newton’ Griffin Alkyd Raw Umber oil paint** then dab to blend with **Vandyke Brown**.

‘Tamiya’ Clear Yellow (X24) or similar:

Hand grip on top of control column (Fig.2), padded rim around the pilots seat (Fig.3), wicker of the pilots seat (Fig.3), bowl of pulsometer (Fig.6) and pilots seat cushion.

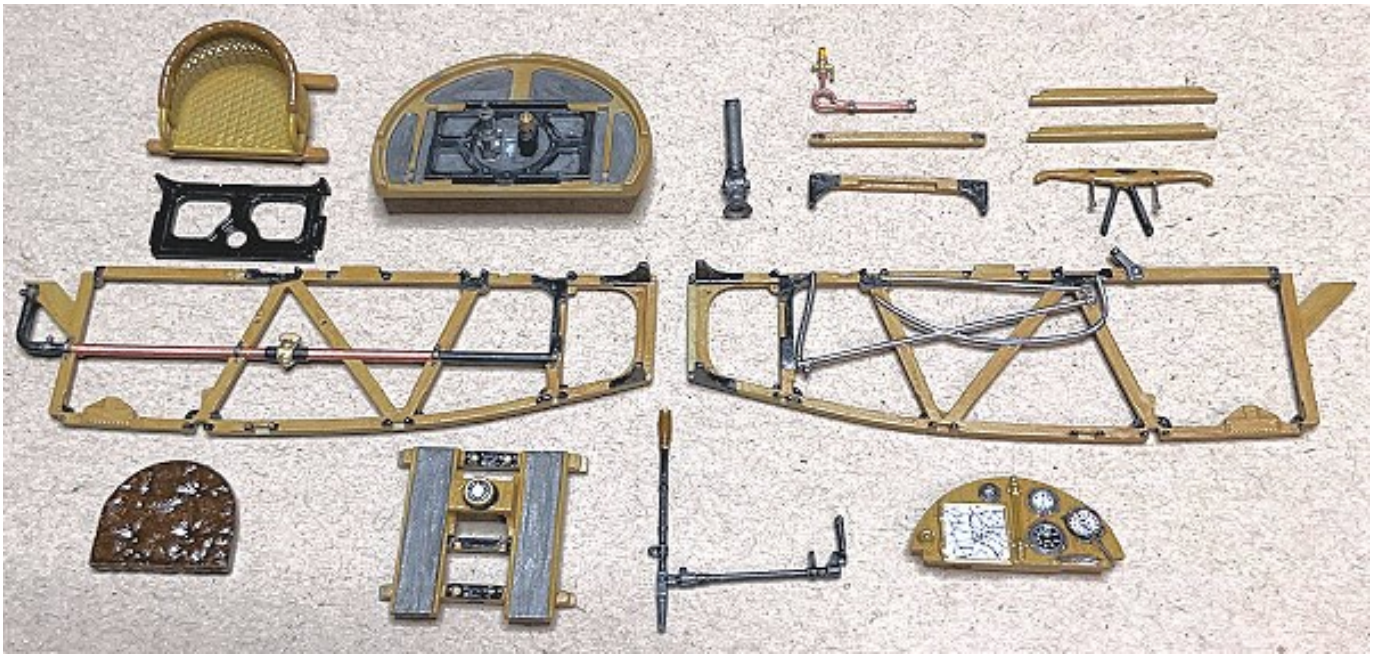
Decals:

NOTE: *Refer to pages 6 and 8 in the instruction manual. The kit supplied decals required for the cockpit are decals are 5 and 8 to 12.*

Airbrush a gloss clear coat, such as ‘Alclad’ Aqua Gloss 600 or similar, over the compass on the foot boards and the instrument panel.

Apply decal 12 to the compass.

Apply decals 5 and 8 to 11 to their locations on the instrument panel.



Rigging:

Example of turnbuckle rigging:

NOTE: *Brass tube can be chemically blackened by immersion in solutions such as ‘Blacken-It’ or similar.*

Cut a short length of blackened tube (0.4 or 0.5mm diameter) Brass tube, such as that supplied from ‘Albion Alloys’ (MBT04 or MBT05) or similar.

Deburr the tube by running a 0.2 mm or 0.3 mm diameter drill through the tube.

NOTE: *Always cut the length of line **much longer** than needed to span between its attachment points.*

Cut a long length of 0.08 or 0.12 mm diameter mono-filament (fishing line), such as ‘Stroft GTM’ or ‘Steelon’.

Pass the line through the tube, then trough the ‘eye of a turnbuckle.

Pass the line back and through the tube.

Slide the tube up to, **but not touching**, the ‘eye’ of the turnbuckle.

Secure the lines to the tube end away from the turnbuckle, using thin CA adhesive.

Cut away any residual tag of line at the tube end.

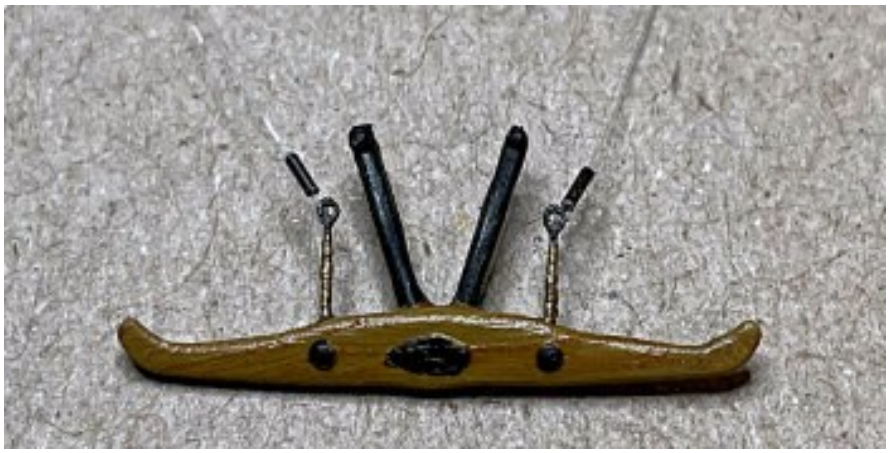
Brush paint the turnbuckle ends with ‘Mr. Colour’ Stainless Steel (213) or similar.

Brush paint the turnbuckle central barrels with ‘Mr. Colour’ Brass (219) or similar.

Rudder control cables:

NOTE: *Refer to Parts 6 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. The rudder control cables on the rudder bar are rigged with blackened 0.4 mm diameter Brass tube, such as ‘Albion Alloy’s’ MBT04 or similar and ‘Stroft GTM’ 0.08 mm diameter mono-filament.*

Using the previous example for rigging a turnbuckle, attached a line to one end of the two turnbuckles previously fitted into the rudder bar.



Upper elevator control cables:

NOTE: *Refer to Parts 6 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. The elevator control cables attached to the control column are rigged with blackened 0.4 mm diameter Brass tube and 0.08 mm diameter mono-filament. Due to the restricted space in the cockpit, no turnbuckles are fitted, just tubes.*

Cut a long length of line.

Pass the line through the pre-drilled hole in the cable lug, part way up the control column.

Slide a short length of tube onto both sides of the line and move them close to, **but not touching**, the lug.

Make sure the line is central in the lever.

Secure the two tubes onto the line using thin CA adhesive.

The bottom cable will be fitted later in this build.

Aileron control cables:

NOTE: *Refer to Parts 6 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. The aileron control cables attached to the lever on the control column are rigged with blackened 0.4 mm diameter Brass tube and 0.08 mm diameter mono-filament. Due to the restricted space in the cockpit, no turnbuckles are fitted, just tubes.*

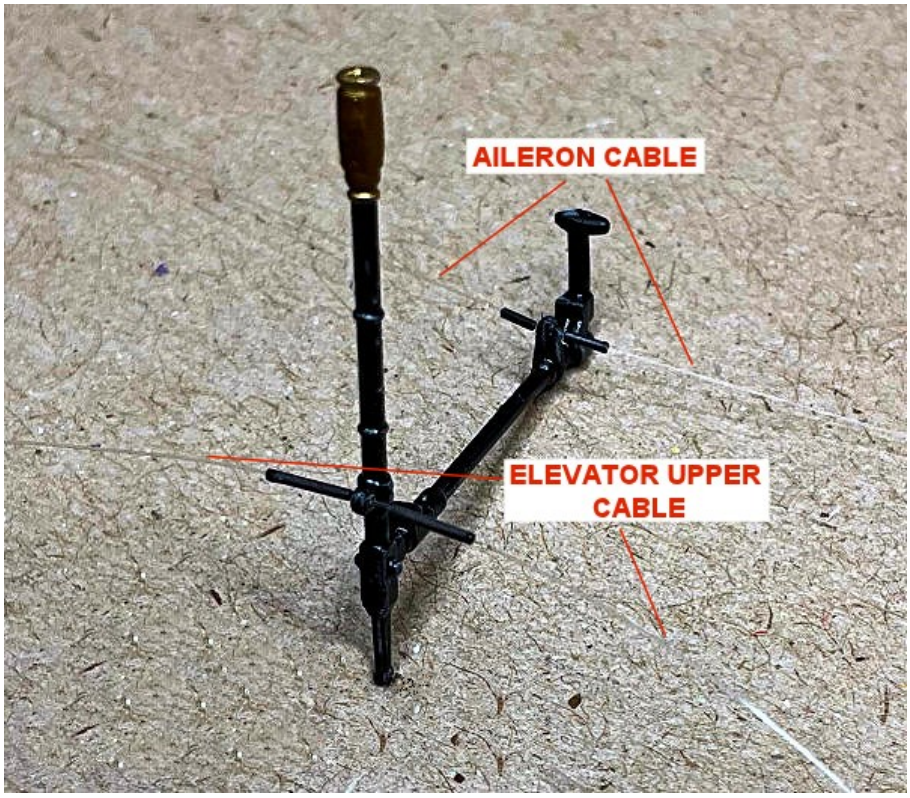
Cut a long length of line.

Pass the line through the pre-drilled hole in the aileron control lever at the forward end of the control column torque tube.

Slide a short length of tube onto both sides of the line and move them close to, **but not touching**, the lever.

Make sure the line is central in the lever.

Secure the two tubes onto the line using thin CA adhesive.



Cockpit side frames:

NOTE: *Refer to Parts 6 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. These frames are rigged with blackened 0.4 mm diameter Brass tube, such as 'Albion Alloy's' MBT04 or similar, 'Stroft GTM' 0.08 mm diameter mono-filament and 'Proper Plane' 3D printed turnbuckles.*

Make sure all of the pre-drilled rigging holes in Part 10 of this build log are clear of any primer and paint. If necessary, run the appropriate size drill through the holes to clear them.

Using the previous example for rigging a turnbuckle, attached a line to one end of the turnbuckle.

Pass a length of line through the other 'eye' end of the turnbuckle

Pass that line through a pre-drilled hole on the top longeron of the cockpit side frame, in a corner of a vertical frame member.

Loop the other end of the line around the through the opposite side of the hole.

Pull both ends of the line to draw the turnbuckle up to the corner of the frame.

Secure the line in the hole using thin CA adhesive.

Pass the attached turnbuckle line diagonally down and across to the pre-drilled hole at the bottom corner of the frame at the bottom longeron.

Pass the line through the pre-drilled hole and gently pull the line to tension it.

Secure the line in the hole using thin CA adhesive.

Cut away any residual ends of the lines at the attachment holes.

NOTE: *Refer to the following photographs for where the turnbuckles should be located.*

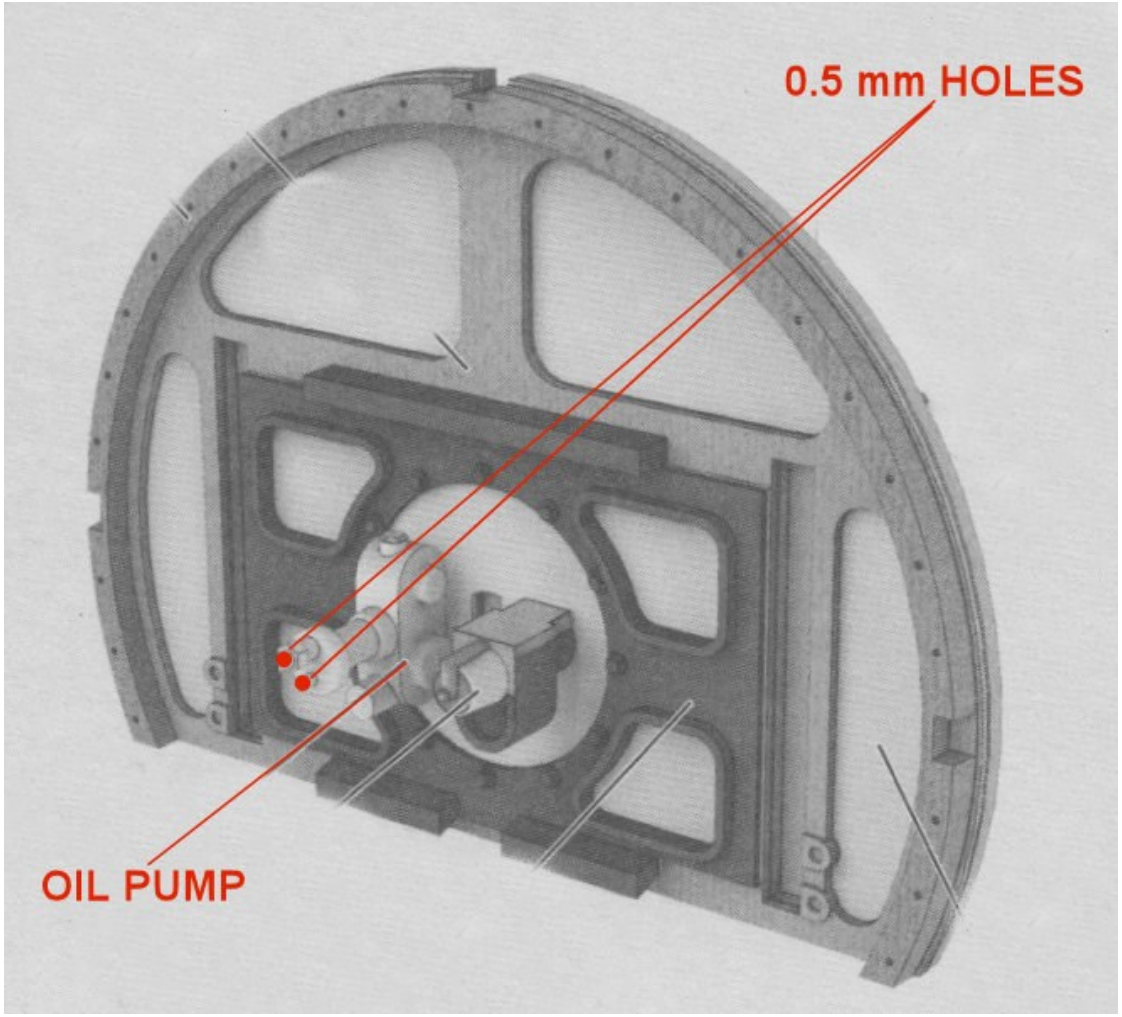
Repeat the procedure to add the bracing lines to both cockpit side frames.

Cockpit starboard side frame shown (port side frame similar).

Modifications (continued):

On the fitted oil pump on the engine bulkhead, cut away the upper extension at the rear of the pump (for the oil supply pipe).

Drill holes of 0.5 mm diameter centrally into the oil pump where the cut away extension was located (for the oil supply pipe) and the short extension at the bottom rear of the pump (for the oil output pipe).



Assembly (continued):

NOTE: *Make sure all paint and primer is removed from the mating surfaces of the various parts. Refer to pages 5, 6 and 7 in the kit instruction manual.*

Cement the cockpit left side frame into its locating recesses in the rear of the engine bulkhead.

Cement the crankshaft mounting bulkhead into its locating recesses in the cockpit left side frame.

Locate the engine crankshaft through the mounting plate and into its locating recess in the rear of the engine bulkhead.

Cement the engine crankshaft in the mounting plate and the rear of the engine bulkhead.

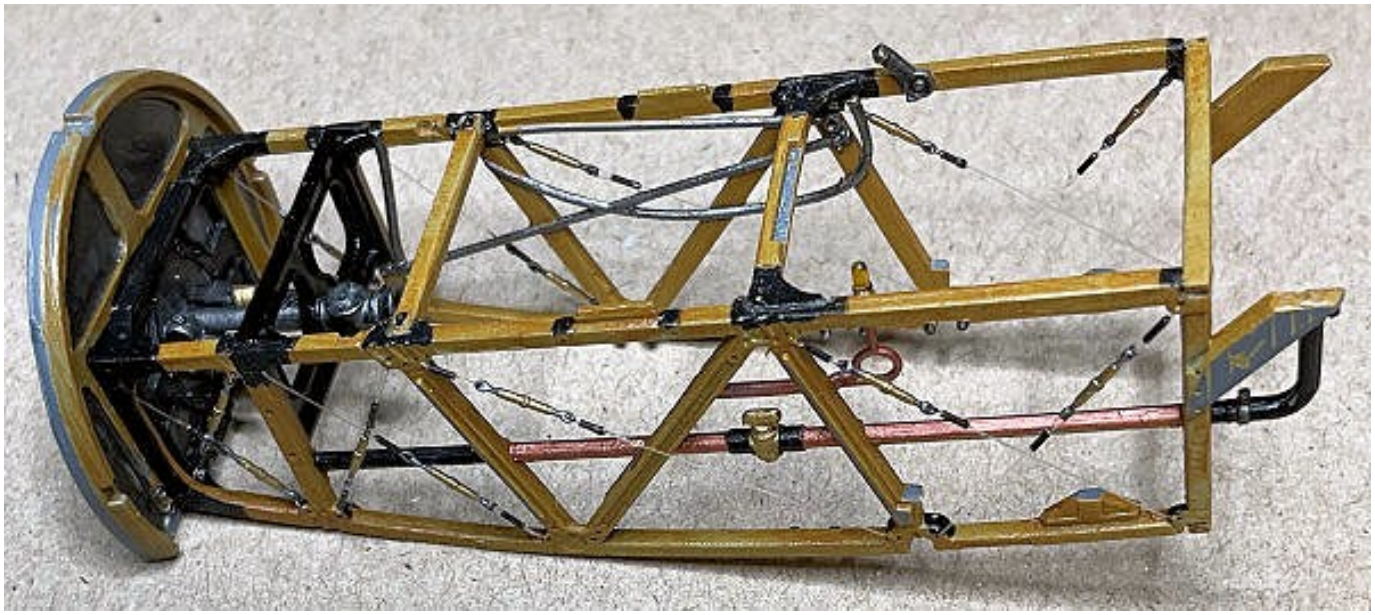
Cement the cockpit right side frame into its locating recesses in the rear of the engine bulkhead and the crankshaft mounting plate.

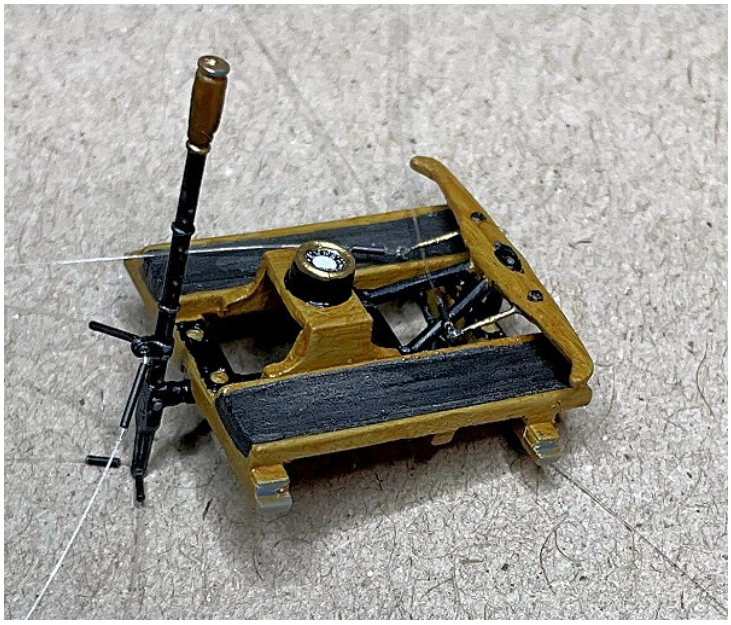
Cement the top cross members (A4 and A5) into their locating recesses in the tops of the cockpit side frames.

Cement the upper and lower cross members (A8 and A9) onto their locating shoulders at the rear or the cockpit side frames.

Cement the pre-rigged control column onto its locating recesses on the underside of the cockpit floor boards (A12).

Cement the pre-rigged rudder bar onto its locating on the torque tube of the control column and the two recesses in the cross member of the floor boards (A12).





Modifications (continued):

Oil supply pipe:

NOTE: *An oil supply pipe needs to be connected between the pre-drilled hole in the forward end of the oil pipe on the cockpit left side frame and the pre-drilled hole in the lower, rear extension of the oil pump. This uses one of the previously created 0.3 mm rod/0.5 mm tube assemblies.*

Cut a length of Brass rod, such that from 'Albion Alloy's' or similar, and bend it such that the ends locate into the holes in the lower, rear pump extension and the hole in the supply pipe on the cockpit left side frame.

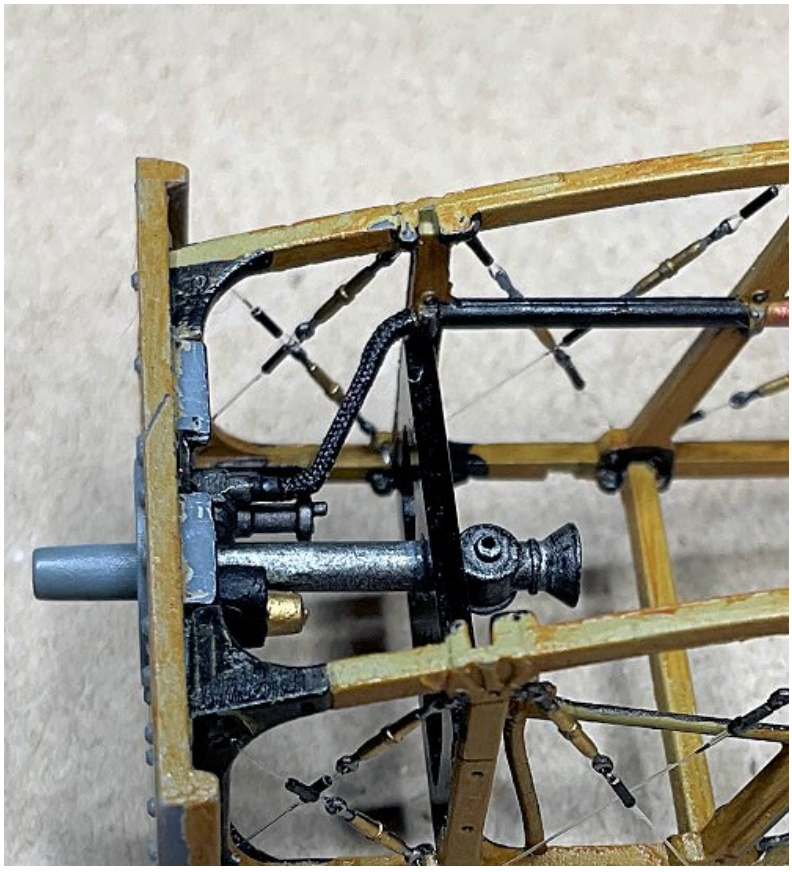
Cut a length of 'ANYZ' 0.5mm black braided line (AN011).

Slide the braided line onto the 0.3 mm rod end and carefully twist the braided line along the rod and over the 0.5 mm tune end.

Apply thin CA adhesive to both ends of the braided line to seal it and secure it onto the rod/tube.

Using such as a shielded razor blade or similar, carefully cut away the ends of the braided line to reveal the ends of the tube and rod.

Using thin CA adhesive, secure the assembly into the holes in the oil pump and side frame supply pipe.



Pulsometer supply and return pipes:

NOTE: *Oil from the oil pump was pumped to the oil Pulsometer, located in the cockpit on the left side frame. A second pipe was connected to the Pulsometer and supplied the oil back and into the hollow crankshaft of the engine, where it was mixed with fuel and supplied to the engine for lubrication. These pipes use two of the previously created 0.3 mm rod/0.5 mm tube assemblies.*

Cut two lengths of 0.5 mm diameter Brass tube, such as ‘Albion Alloy’s’ MBT05 or similar. The length of the tubes should span between the forward ends of the pre-moulded Pulsometer tubes on the cockpit left side frame and close to the rear face of the crankshaft mounting plate.

If necessary, use a drill of 0.3 mm diameter to remove and burrs of Brass from the bore of the cut tubes. This is required to allow 0.3 mm diameter rod to be inserted.

Using CA adhesive, secure the two tubes horizontally together with their ends aligned.

Brush paint the tubes with copper, such as ‘Mr. Colour’ Copper (215) or similar.

Using CA adhesive, secure the joined tubes horizontally together against the ends of the pre-moulded Pulsometer tubes and onto the frame members on the cockpit left side frame.

Cut two lengths of 0.3 mm diameter copper wire.

Anneal (soften) the wires by applying heat, from a cigarette lighter or similar, along their entire length. Make sure you don’t apply too much heat or the wire could melt.

Bend one end of the two wires to 90 degrees.

Pass the straight end of one wire through the opening in the left side of the crankshaft mounting plate with the bent end at the rear.

Insert the bent end into the end of the bottom Pulsometer tube.

Repeat to insert the other wire into the end of the top Pulsometer tube.

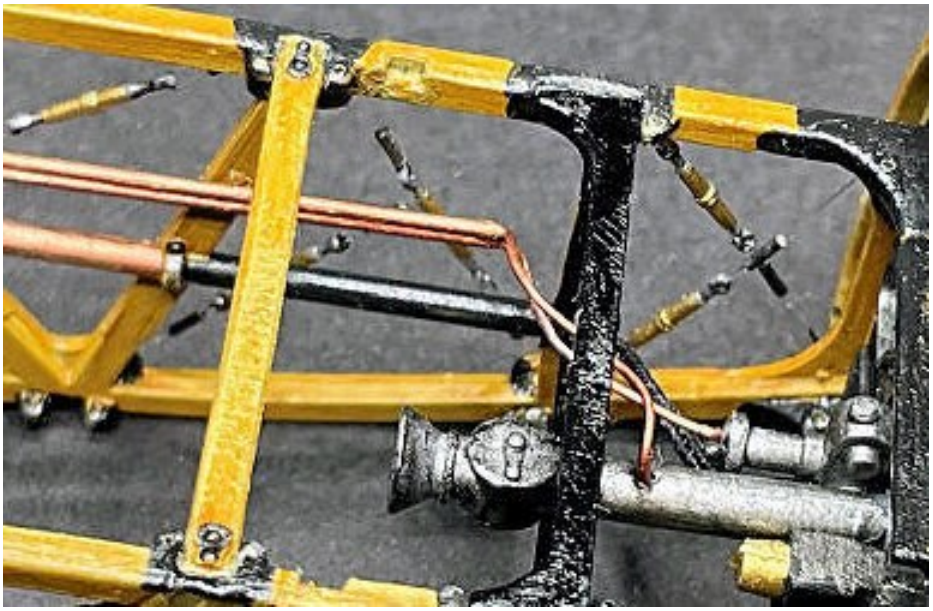
Secure the two pipes in the tubes using thin CA adhesive.

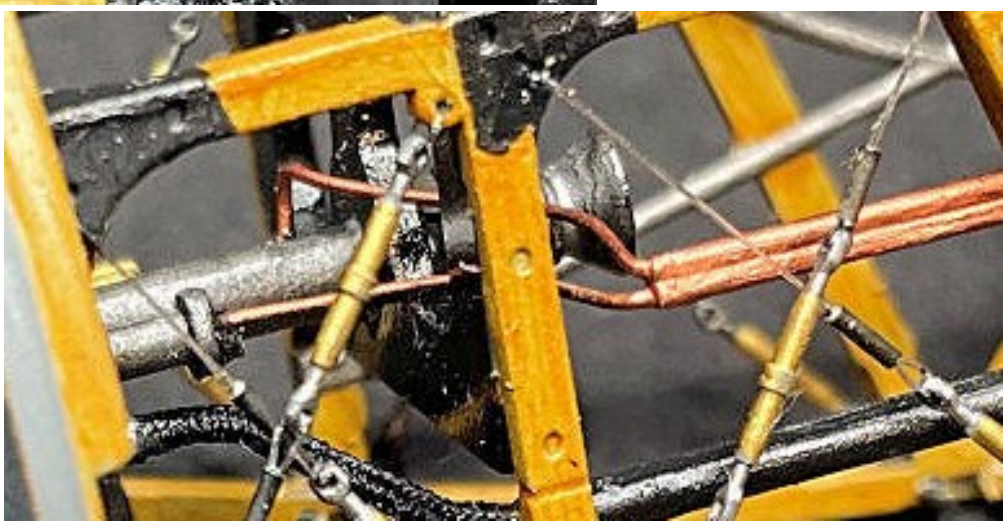
Bend the bottom wire and if necessary trim its length, such that the end can be inserted into the pre-drilled hole in the rearward extension of the oil pump.

Secure the wire into the oil pump using thin CA adhesive.

Repeat to insert the top wire into the pre-drilled hole in the top of the engine crankshaft.

If necessary, paint over the tubes or wires with ‘Mr. Colour’ Copper (215) or similar.





Assembly (continued):

NOTE: *The foot boards and control column assembly can be inserted from under the cockpit side frames. Take care not to catch the ends of the rudder bar when inserting the assembly, as the rudder bar ends are a close fit past the cockpit side frames.*

WARNING: *From this point onwards, take care when handling the cockpit assembly, as the control column extends from the underside of the cockpit assembly. Therefore the exposed bottom of the control column could be damaged.*

Cement the foot boards/control column assembly in position into the four locating recesses on the underside of the cockpit side frames.

NOTE: *The pilots seat can be inserted through the top of the cockpit side frames by tipping it down at the right side to avoid the pipes on the left side frame.*

Cement the pilots seat and its cushion in position on its four locating shoulders on the cockpit side frames.

Rigging (continued):

Aileron control cables:

Pass the left aileron control line under the left foot board and over the bottom of the cockpit left side frame at the rear of the diagonal frame member.

Keeping the line taut, secure the line to the cockpit side frame member, using thin CA adhesive.

Repeat the procedure to secure the aileron right control line.

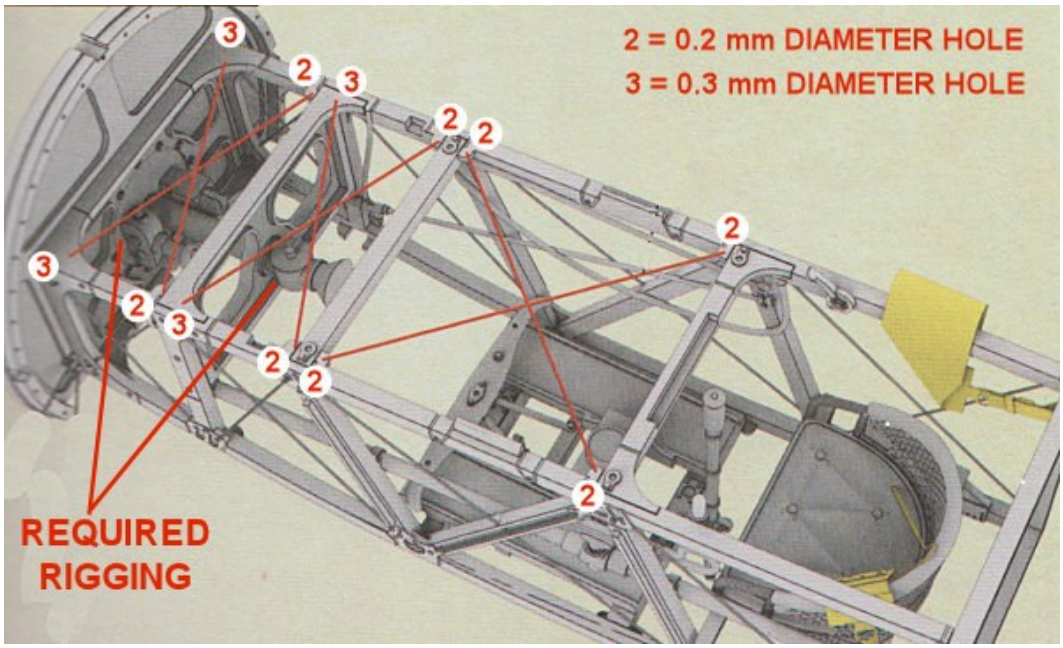
Cut away any residual end tags of line at the cockpit side frame.

Rudder control cables:

Pass the two rudder control lines rearwards along the sides of the compass mounting and under the pilots seat assembly.

Upper cross bracing:

NOTE: *Normally this cross bracing between the cockpit side frames would not be visible on the completed model, due to the fully enclosed fuselage sides and the pilots instrument panel hiding and of the rigging. However, this model will have open access panels on the fuselage forward sides. Therefore the visible cross bracing between the first two frame bats needs to be added.*



NOTE: *Refer to Parts 7 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. These frames are rigged with blackened 0.4 mm diameter Brass tube, such as 'Albion Alloy's' MBT04 or similar, 'Stroft GTM' 0.08 mm diameter mono-filament and 'Proper Plane' 3D printed turnbuckles.*
The third frame bay rearwards does not require rigging as it will not be seen on the completed model.

Make sure the relevant pre-drilled rigging holes in Part 10 of this build log are clear of any primer and paint. If necessary, run the appropriate size drill through the holes to clear them.

Using the previous example for rigging a turnbuckle, attached a line to one end of a turnbuckle.

Pass a length of line through a 0.3 mm diameter pre-drilled hole in a forward corner of the front cross member.

Pass that line through the free 'eye' end of the rigged turnbuckle.

Pass the rigged line of the turnbuckle across the frame bay and through the 0.2 mm diameter pre -drilled hole in the diagonally opposite corner.

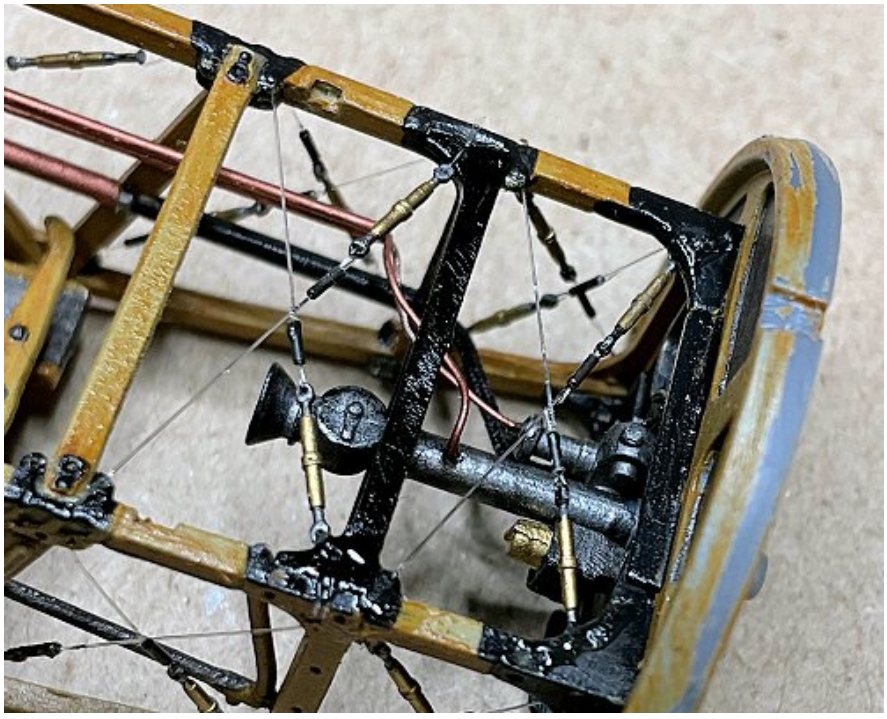
Pull all three lines taut with the turnbuckle positioned at the forward corner of the frame.

Secure the lines in their holes using thin CA adhesive.

Cut away any residual ends of the lines at the attachment holes.

Repeat the procedure to add the opposite brace line in the frame bay.

Repeat the procedure to add the two brace lines in the next frame bay.

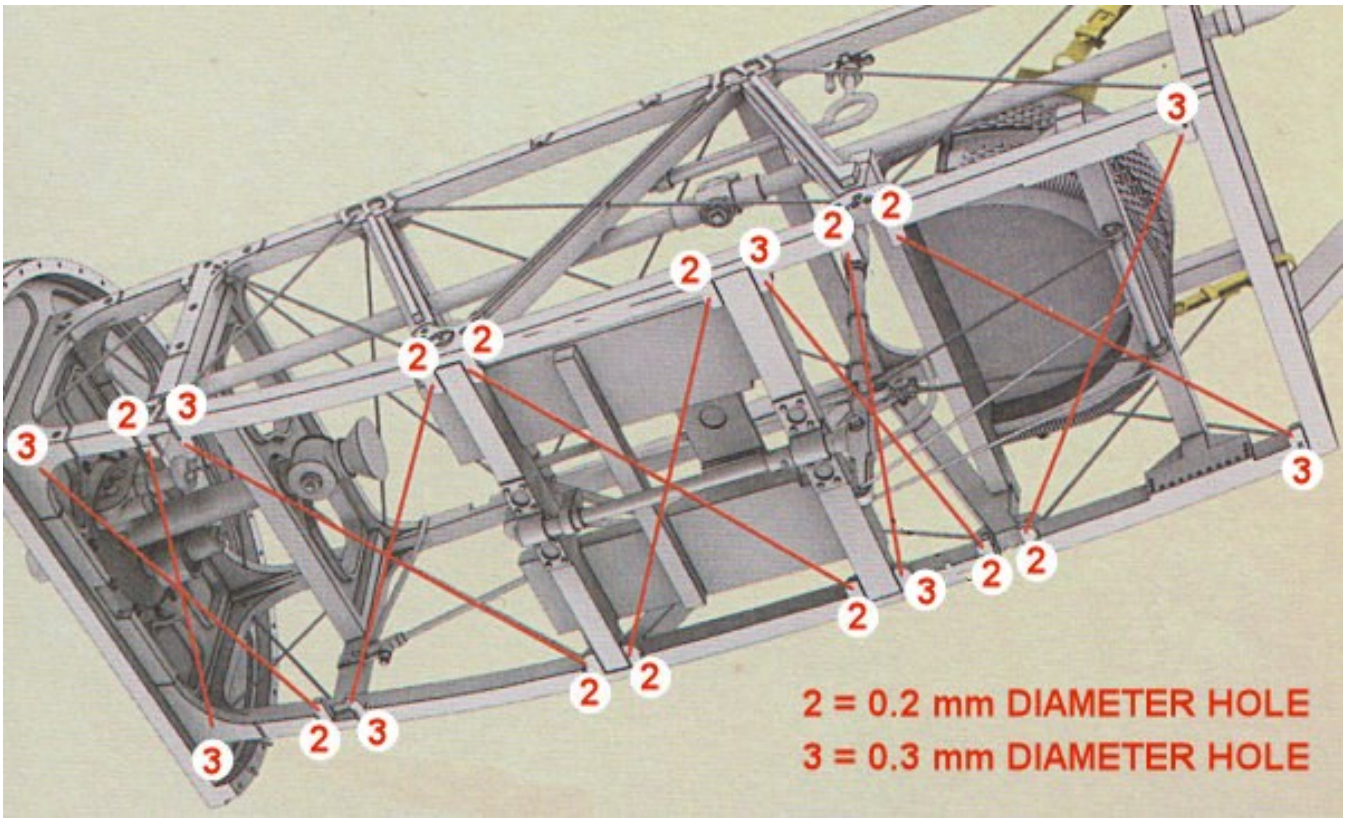


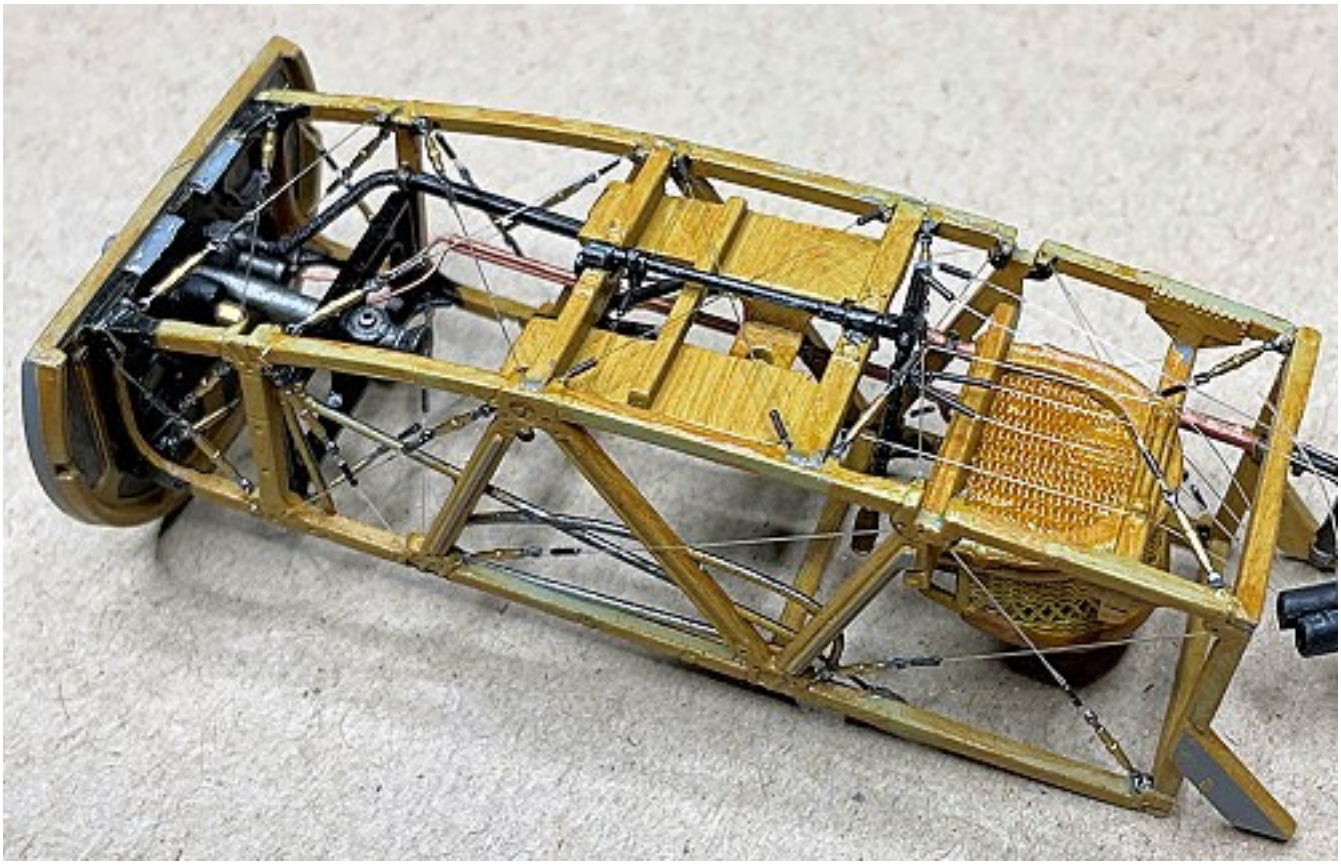
Lower cross bracing:

NOTE: *Refer to Parts 7 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. These frames are rigged with blackened 0.4 mm diameter Brass tube, such as 'Albion Alloy's' MBT04 or similar, 'Stroft GTM' 0.08 mm diameter mono-filament and 'Proper Plane' 3D printed turnbuckles.*

1. *Turnbuckles are added only where they will be visible on the completed model.*
2. *Use only tubes (not turnbuckles) for the cross bracing under the foot boards.*

Repeat the previous procedure to add cross bracing wires where shown on the following illustration. Turnbuckles are only fitted at the 0.3 mm pre-drilled holes.

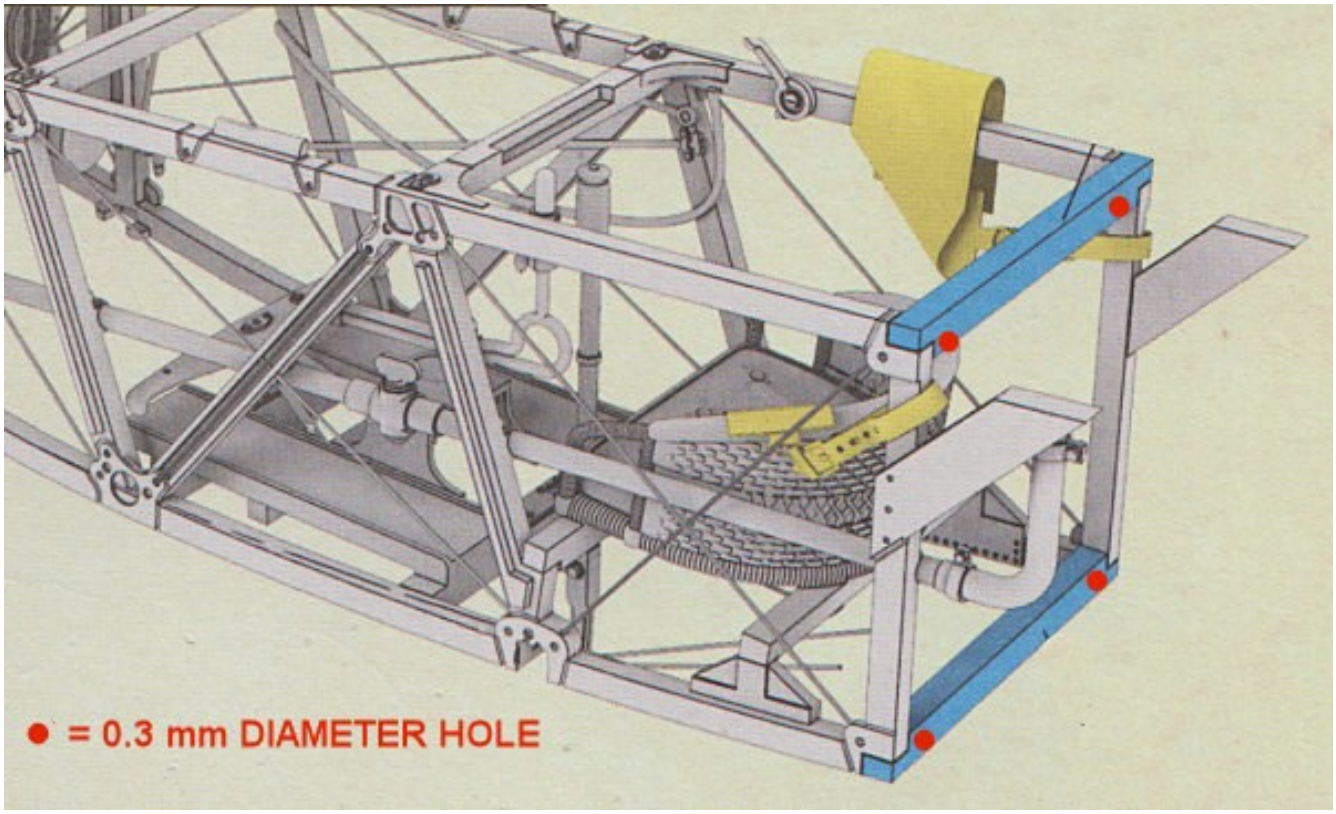


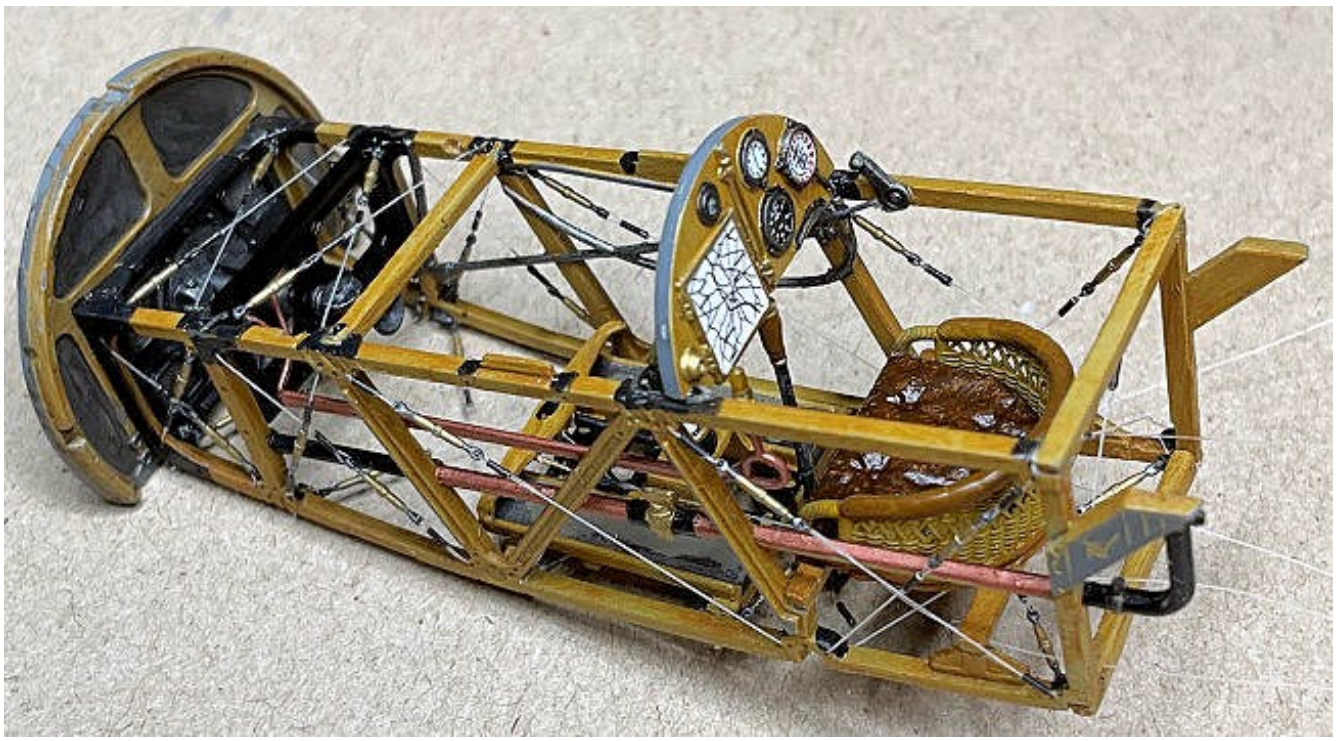


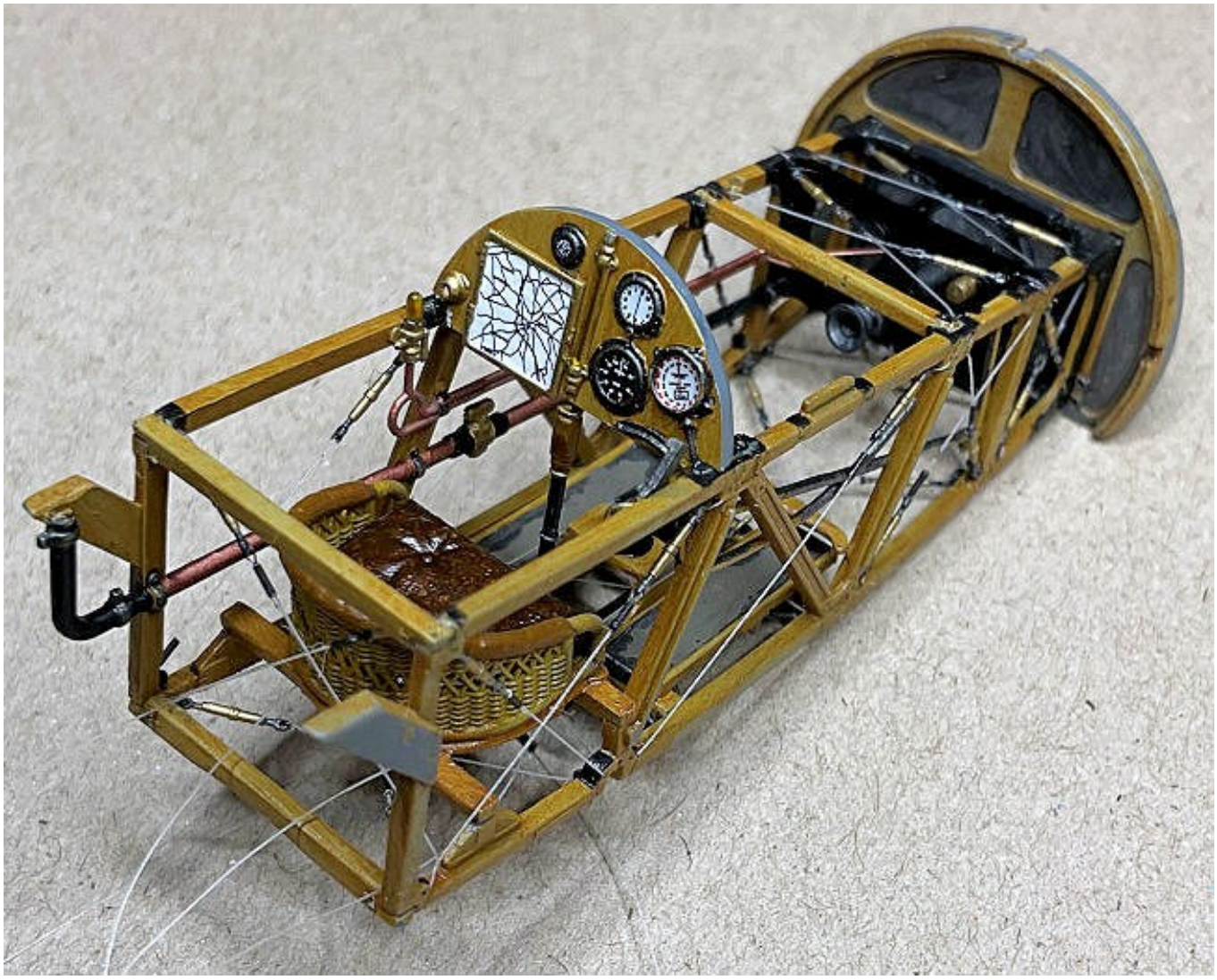
Rear cross bracing:

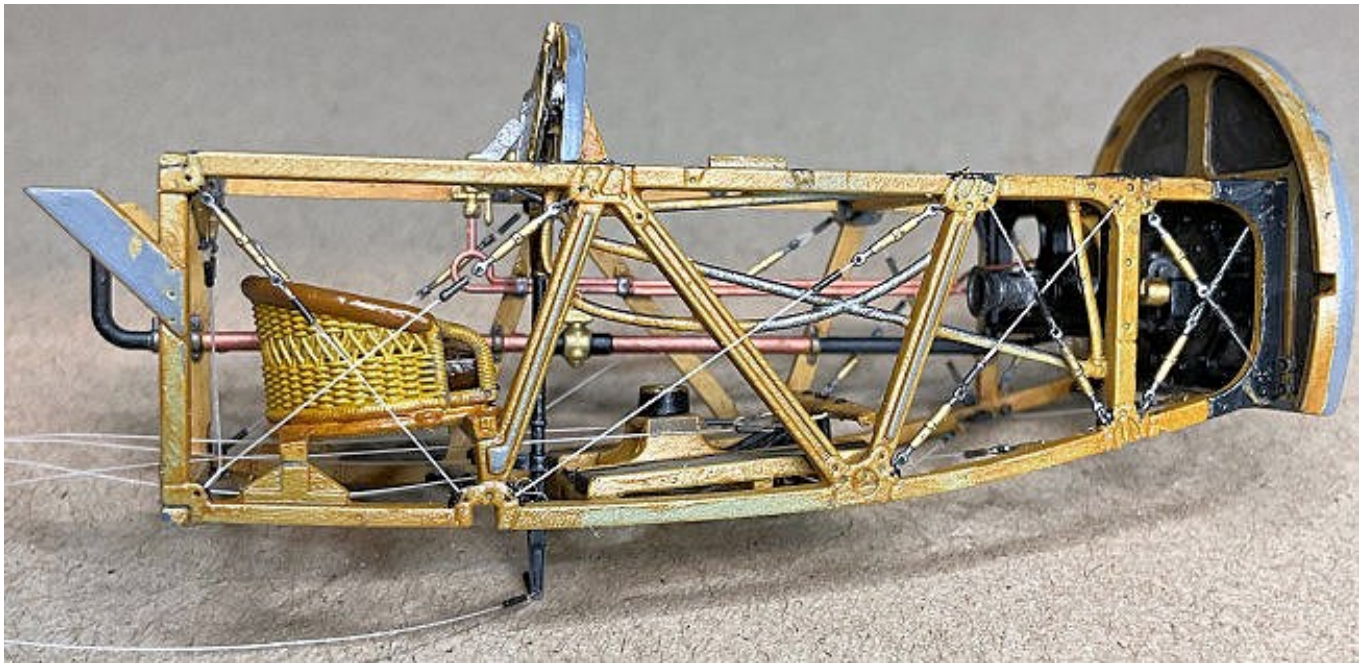
NOTE: *Refer to Parts 7 (Rigging) and 10 (Preparation for internal rigging) of this build log for guidance. This frame is rigged with blackened 0.4 mm diameter Brass tube, such as 'Albion Alloy's' MBT04 or similar, 'Stroft GTM' 0.08 mm diameter mono-filament and 'Proper Plane' 3D printed turnbuckles.*
The turnbuckles are fitted at the tops of the cross bracing wires.

Repeat the previous procedure to add cross bracing wires where shown on the following illustration.



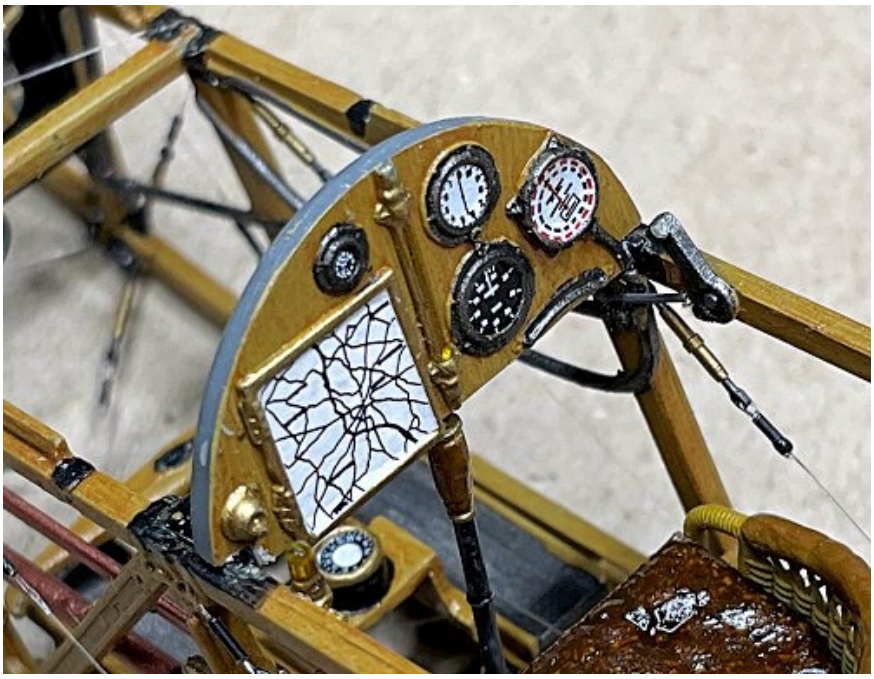






Assembly (continued):

Cement the pilots instrument panel into its locating recesses on the cockpit cross member.

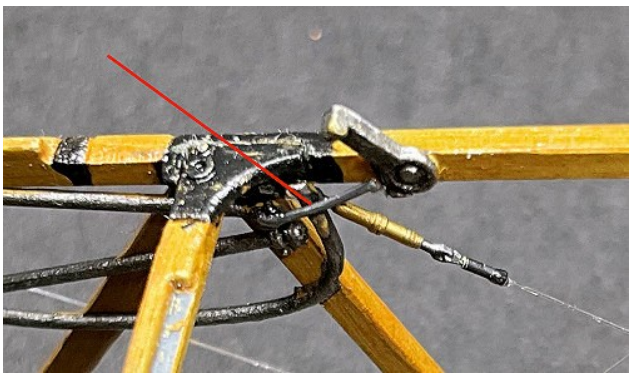


Modifications (continued):

Carburetor control:

Cut a short length of 0.3 mm diameter lead wire, such as that from ‘PlusModel’ or similar.

Using thin CA adhesive, secure the wire between the carburetor control lever and the end of the pre-moulded control rod on the cockpit right side frame.



Magneto HT lead:

Drill a hole of 0.5 mm diameter down and centrally into the housing of the magneto.

Cut a length of 0.4 mm diameter Brass rod, such as that from ‘Albion Alloy’s or similar.

Bend the end of the rod to 90 degrees.

Roll cut off the bent rod end.

Check the bent rod against the fitted magneto on the rear of the engine bulkhead and trim the length of one end such that it can be fitted into the pre-drilled hole in the top of the magneto housing with the other end against the bulkhead.

Brush paint the rod with ’Tamiya’ Red (XF7) or similar. This is not the correct colour for the HT lead, but will make it more visible inside the fuselage.

Insert the rod into the pre-drilled hole and secure it in position with thin CA adhesive.

Fuel system description

NOTE: *The fuel tank, pipes and most control rods and valves are not represented in the kit.* ***The following description of the fuel system is based on Bristol manufacturing drawings and some guesswork.***

Engine fuel supply:

The fuel tank was located in the top of the fuselage and spanned across the two top longerons of the fuselage. Filling the tank was through a filler cap at the outside top centre of the forward fuselage. At the bottom, right side of the fuel tank was a funnel shaped sump, which supplied fuel to the attached shut-off cock. From there a pipe supplied the fuel down to a fine control valve, probably located on the rear of the engine bulkhead. A pipe from the fine control valve was connected to the carburetor located at the rear of the engine crankshaft. It's likely that a carburetor drain pipe was fitted to the carburetor to drain fuel down and out to atmosphere through the underside of the fuselage.

Carburetor fuel control:

The carburetor was operated from a lever located on the top, right longeron in the cockpit, to the rear of the instrument panel. A control rod or cable was connected between the control lever and the operating lever on the carburetor.

Fuel tank shut-off cock:

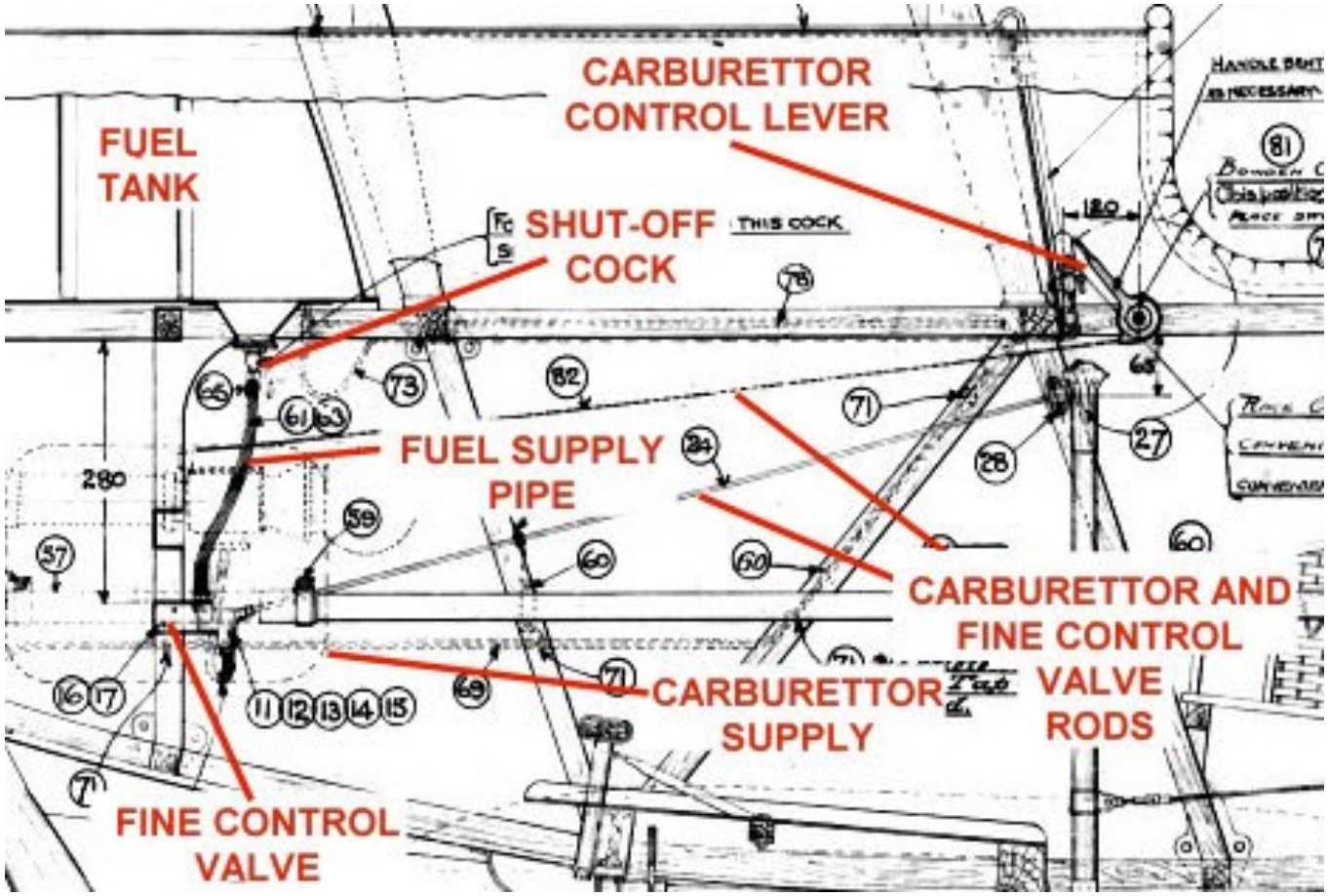
The fuel tank shut-off cock was operated by the pilot. The fuel shut-off cock was located in the fuel delivery connection located on the tank funnel sump under the fuel tank. The control cable or rod was located under the instrument panel and spanned across the cockpit to the lever on the shut-off cock. The exact position of the pilots control handle in unclear.

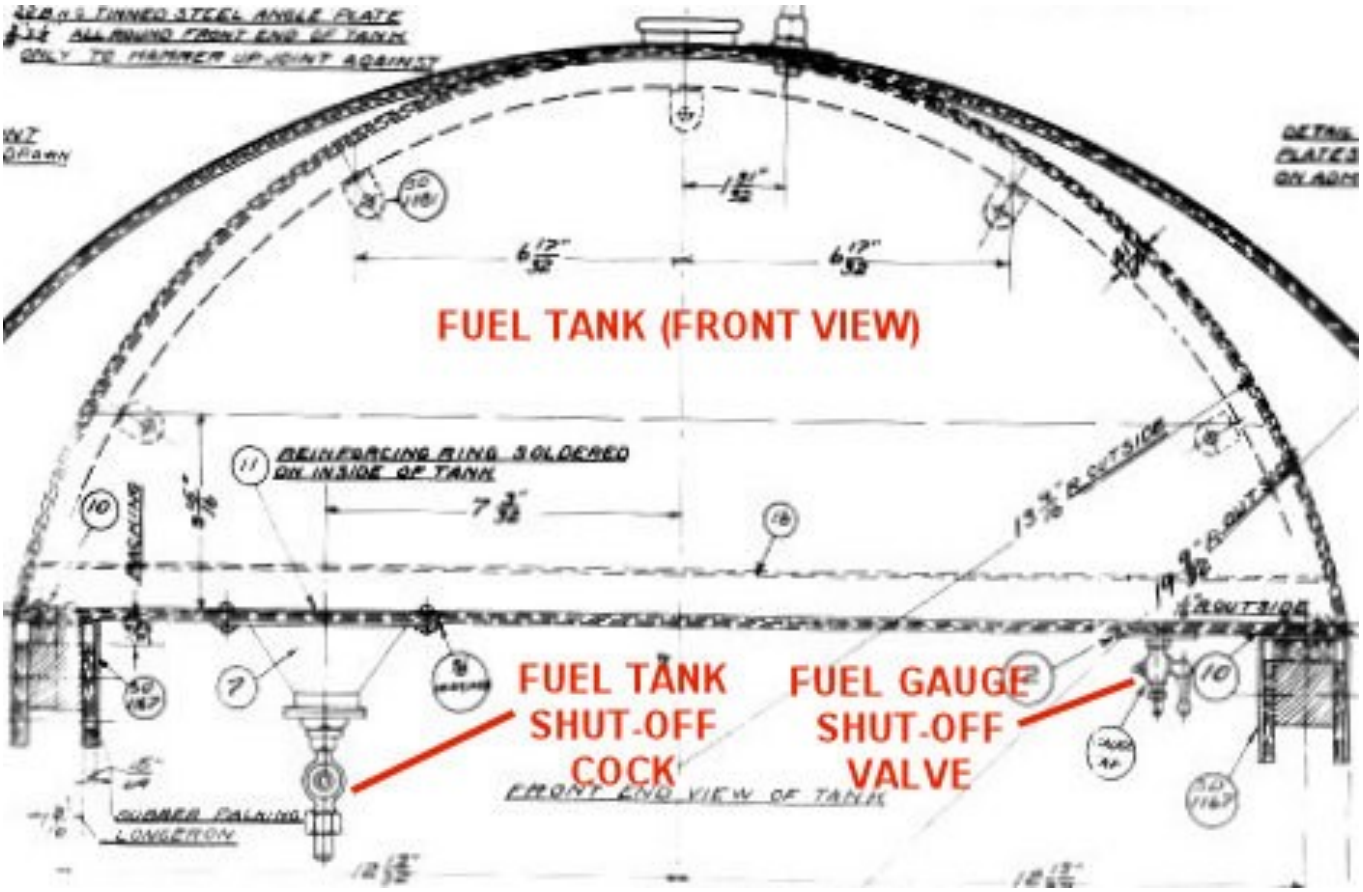
Fine control valve:

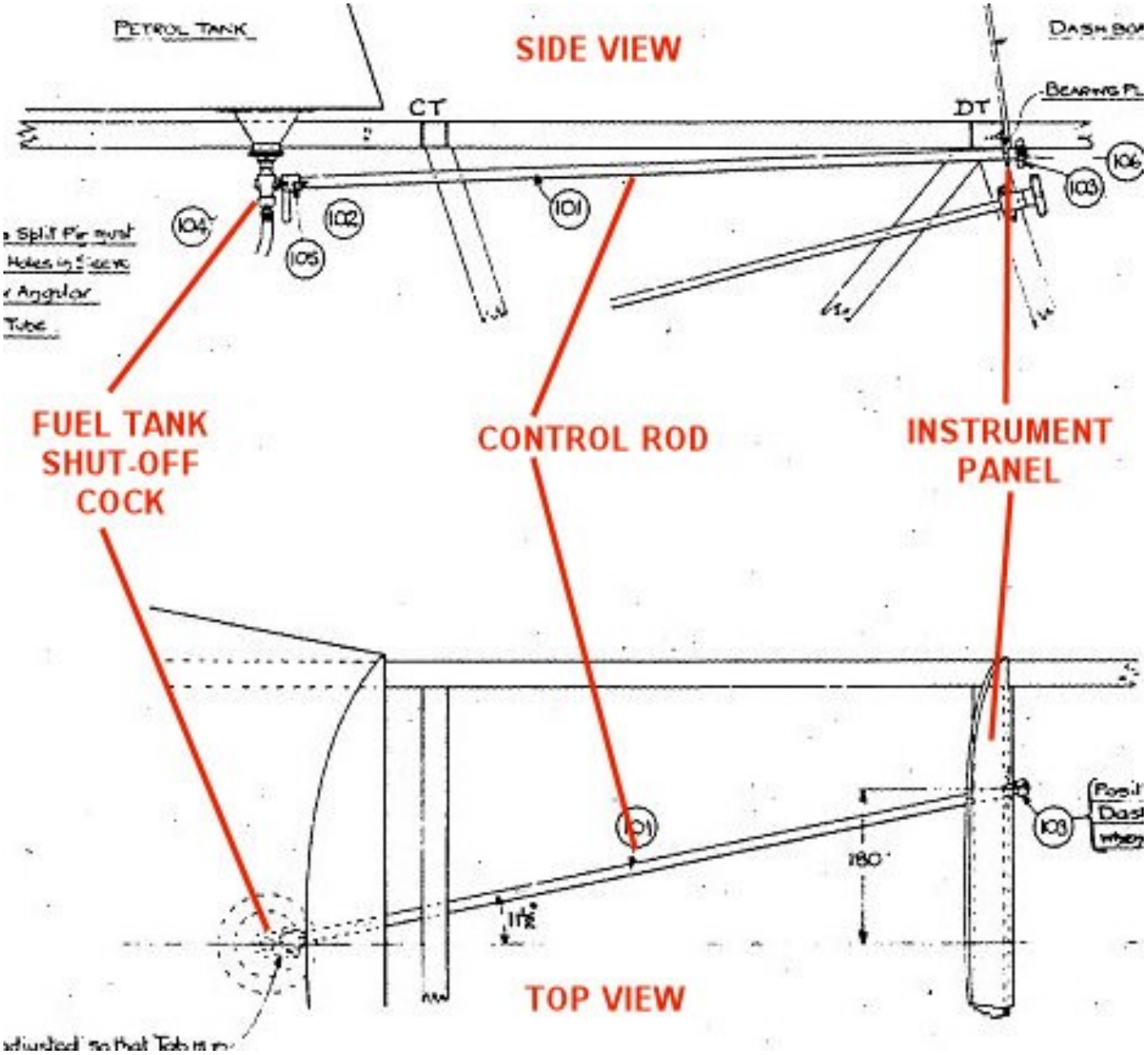
I believe the fine control valve operated similar to the petrol choke control on older vehicles, by controlling the amount of fuel being supplied to the carburetor. The valve was operated by a steel tube connected between the fine control valve and a control handle located under the bottom, right side of the instrument panel.

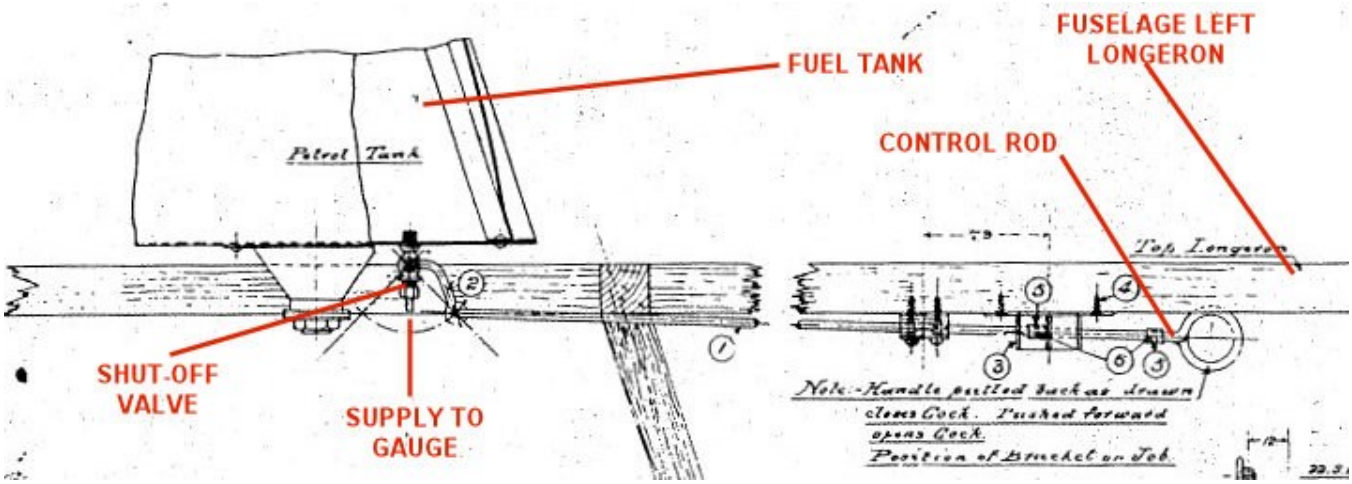
Fuel tank contents indication:

The pilots fuel gauge was a fuel level indicator, located on the instrument panel. It used the 'U tube' principle to indicate the contents of the fuel tank. The gauge was connected to a shut-off valve, located under the fuel tank of the left side. The valve was controlled by a push/pull rod, which was located on the top, left side longeron of the fuselage. Its ring shaped handle was just to the rear of the instrument panel.


CARBURETTOR CONTROL LEVER
FUEL TANK
SHUT-OFF COCK
FUEL SUPPLY PIPE
CARBURETTOR AND FINE CONTROL VALVE RODS
CARBURETTOR SUPPLY
FINE CONTROL VALVE


FUEL TANK (FRONT VIEW)
FUEL TANK SHUT-OFF COCK
FUEL GAUGE SHUT-OFF VALVE
FRONT END VIEW OF TANK


PETROL TANK
SIDE VIEW
CT
DT
101
102
103
104
105
106
FUEL TANK SHUT-OFF COCK
CONTROL ROD
INSTRUMENT PANEL
180°
TOP VIEW


FUEL TANK
FUSELAGE LEFT LONGERON
CONTROL ROD
Petrol Tank
SHUT-OFF VALVE
SUPPLY TO GAUGE
Top Longeron

Fuel tank:

NOTE: *Only the underside of the fuel tank is required. The front, rear and sides of the tank are not required as they will not be visible on the completed model.*

Cut two lengths of 1.0 mm styrene rod, such as that from 'Plastruct' or similar.

Trim the length of the rods such that they can be located inside the fuel tank panel (B15). To make sure the fuel tank panel will correctly locate on to the fuselage, the rods when fitted onto the panel should be:

Up from the bottom edges

One end against the rear locating lugs on the panel

Forward ends back from the front edge of the panel.

Remove any paint, as necessary, from inside the panel to ensure the rods adhere fully to the panel.

Cement the rods on the inside of the panel and parallel to the bottom edges of the panel.

Cut a piece of 0.4 mm thick styrene sheet and shape the card such that it will fit onto the two fitted rods with its front edge back from the panel front edge.

Cement the card onto the two rods on the panel.

NOTE: *To represent the collector sump under the fuel tank, I used an appropriate size of round ended sprue gate from the kit sprues.*

Position the fuel tank panel onto its locating recesses in the cockpit top longerons and top of the engine bulkhead.

From the underside of the cockpit assembly, mark the added bottom of the fuel tank at the right side and centrally between the added cross bracing wires.

Remove the fuel tank from the cockpit assembly.

File or sand the flat end of the sprue to reduce its length to 3 mm.

Cement the sprue onto the mark previously made on the added bottom of the fuel tank.

Drill a hole of 0.6 mm diameter into the centre of the added sprue.

Re-position the fuel tank panel onto its locating recesses in the cockpit top longerons and top of the engine bulkhead.

Check the added sprue is clear of the cross bracing wires.

Fuel gauge shut-off valve

NOTE: *The following steps are intended only to 'represent' the fuel gauge shut-off valve under the fuel tank.*

From the underside of the cockpit assembly, mark the added bottom of the fuel tank at the left side, inboard from the cockpit top longeron, between the added cross bracing wires and aligned with the added sprue.

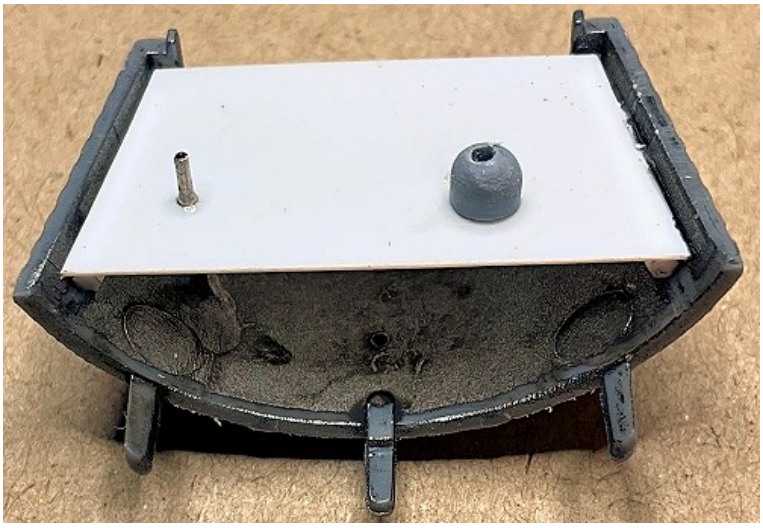
Remove the fuel tank from the cockpit assembly.

Use the mark made as a guide and drill a hole of 0.7 mm diameter through the added bottom of the fuel tank.

Cut a length od 0.6 mm diameter Nickel-Silver tube, such as 'Albion Alloy's' NST06 or similar.

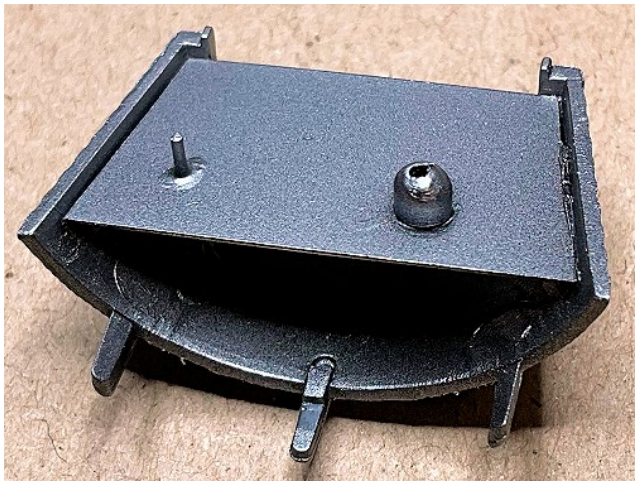
Trim the length of the tube such that it can be inserted through the pre-drilled hole and against the inside of the fuel tank panel (for easier alignment when fitting). The tube should have 3 mm protruding from the added bottom of the fuel tank.

Secure the tube vertically into the added bottom of the fuel tank and against the inside of the fuel tank panel.



Airbrush the added fuel tank panel, sprue and tube with a gloss black, such as 'Tamiya' Gloss Black (X1) or similar.

Airbrush the added fuel tank panel, sprue and tube with 'Alclad' Duraluminium (ALC-102) or similar.



Engine fuel supply:

NOTE: *Refer to the following photograph for guidance.*

Use an offcut of sprue and file it to a square shaped block to represent the fine control valve.

Drill a hole of 0.6 mm diameter vertically through one side of the block.

Brush paint the block with 'Mr. Colour' Stainless Steel (213) or similar.

Using thin CA adhesive, secure the block onto the right cross member of the engine bulkhead. Make sure the pre-drilled hole is vertical on the engine bulkhead.

Cut a short length of 0.7 mm diameter Brass tube, such as 'Albion Alloy's' MBT07 or similar.

Cut a long length of 'MFH' black 0.4mm flexible tube (P-961).

Using thin CA adhesive, secure the 'MFH' tube into the Brass tube.

Using thin CA adhesive, secure the brass tube into the pre-drilled hole in the sump of the fuel tank.

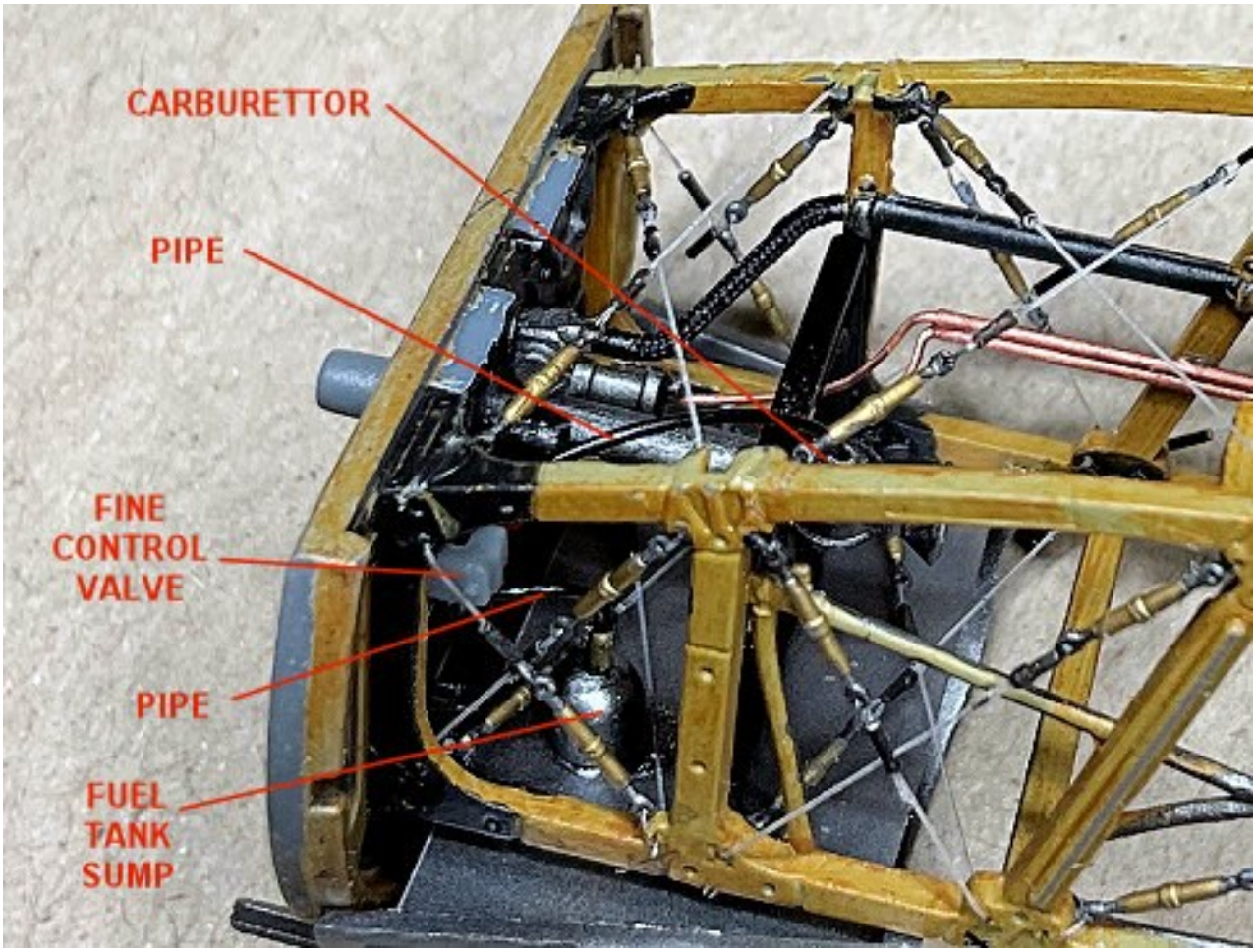
Position the fuel tank panel onto its locating recesses in the cockpit top longerons and top of the engine bulkhead.

Pass the free end of the 'MFH' tube down and through the pre-drilled hole in the fine control valve block.

Loop the tube under the crankshaft support frame and to the pre-drilled hole in the underside of the carburetor.

Trim the length of the tube such that it can be fully inserted into the carburetor without too much loop in the tube.

Remove the fuel tank with the tube, for fitting later in the build.



Fuel tank contents indication:

NOTE: *The following 'represents' the fuel supply pipe to the cockpit fuel gauge.*

Cut a long length of 'MFH' black 0.4mm flexible tube (P-961).

Cut a short length of 0.2 mm diameter rod, such as that from 'Albion Alloy's' or similar.

Insert half of the rod into the 'MFH' tube.

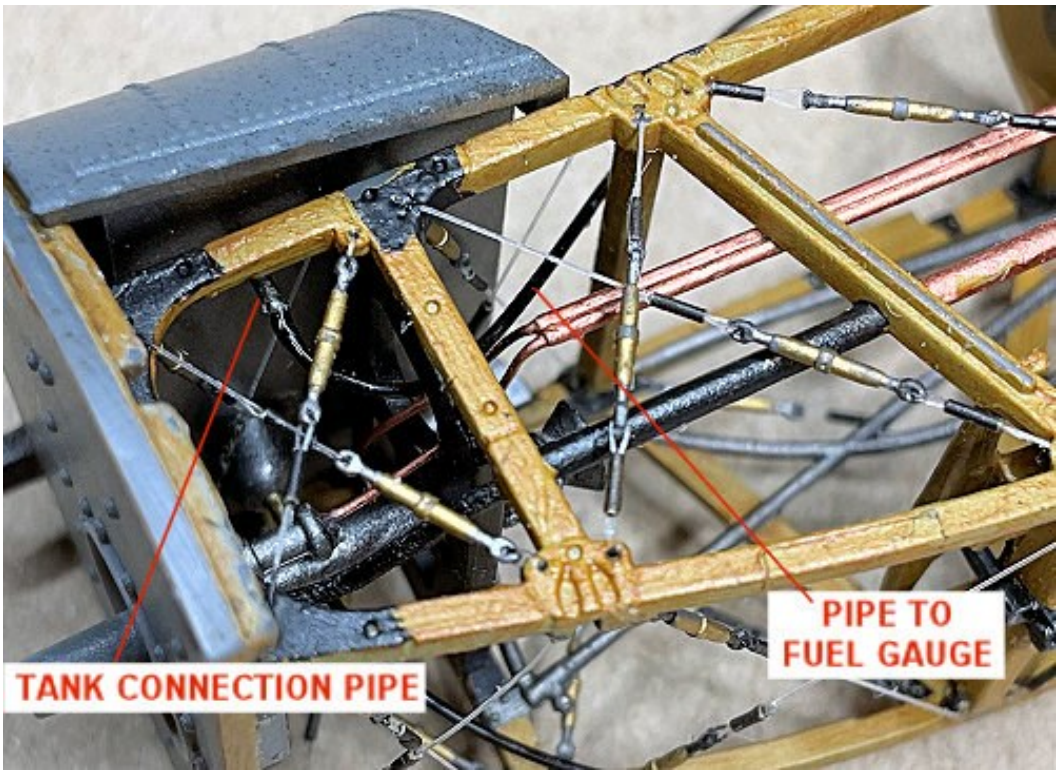
Insert the exposed rod into the tube already fitted on the underside of the added fuel tank.

Using thin CA adhesive, secure the rod and 'MFH' tube into the tank tube.

Position the fuel tank panel onto its locating recesses in the cockpit top longerons and top of the engine bulkhead.

Check the routing of the 'MFH' tube by passing it up and over the cross member of the cockpit towards the rea of the instrument panel.

Cut the tube away at the instrument panel, for attaching later in the fuselage build.



NOTE: *The following 'represents' the control for operating the shut-off valve at the fuel tank.*

Cut a long length of 0.5 mm diameter Nickel-Silver tube, such as 'Albion Alloy's NST05 or similar.

Position the fuel tank panel onto its locating recesses in the cockpit top longerons and top of the engine bulkhead.

NOTE: *When bending the pipe to shape, regularly check it against the top left side of the cockpit assembly.*

Bend the pipe such that when it's in position at the top, left longeron of the cockpit assembly and under the cross members:

> The cockpit end is just proud of the bottom, left edge of the instrument panel and inboard, clear of the Pulsometer.

The run of the tube is in contact with the underside of the cockpit cross members and against the top, left longeron

The front end of the pipe is bent inboard to pass through the opening in the crankshaft mounting plate, then bent back outboard towards the tube under the added fuel tank.

Once the tube has been bent to the required shape, trim the front end to give space for an operating cable to be added and attached to the fuel tank tube.

NOTE: *During the following step, take care not to damage any cross brace rigging.*

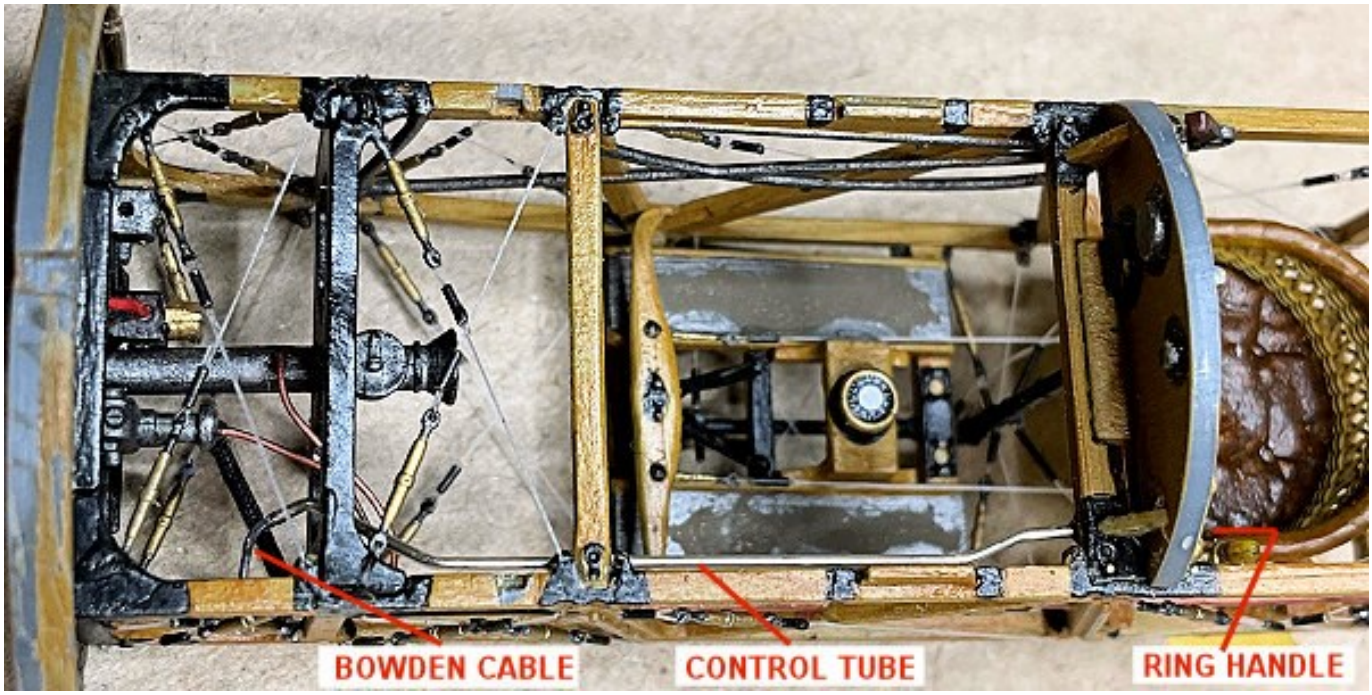
Carefully pass the tube assembly through the cockpit left side and the opening in the crank shaft mounting plate.

Position the tube under the cockpit cross members and instrument panel and at the top left longeron. Make sure that:

The bent end at the font of the tube is clear of, but angled towards the fuel tank tube

The ring handle at the rear of the tube visible rear of the instrument panel and is inboard, clear of the Pulsometer.

Using thin CA adhesive, secure the tube to the underside of the cockpit cross members.



Carburetor fuel control:

Cut a length of 0.2 mm diameter Nickel-Silver tube, such as ‘Albion Alloy’s’ NST02 or similar.

Bend the ends of the rod such that:

One end locates on the inside edge of the cockpit top right longeron, close to the front of the pre-moulded, horizontal control tube (from the pilots control lever).

The opposite end locates flat onto the top of the carburetor on the rear of the engine crankshaft.

Using thin CA adhesive, secure the tube in position on the cockpit side frame and the carburetor.

Fine control valve:

Cut a length of 0.2 mm diameter Nickel-Silver tube, such as ‘Albion Alloy’s’ NST02 or similar.

Bend the one end of the rod such that it can be located on the inside edge of the right cockpit vertical member (under the crankshaft mounting plate) and angled up towards the added fine control valve (on the rear of the engine bulkhead).

Cut a short length of 0.2 mm diameter lead wire, such as that from ‘PlusModel’ or similar.

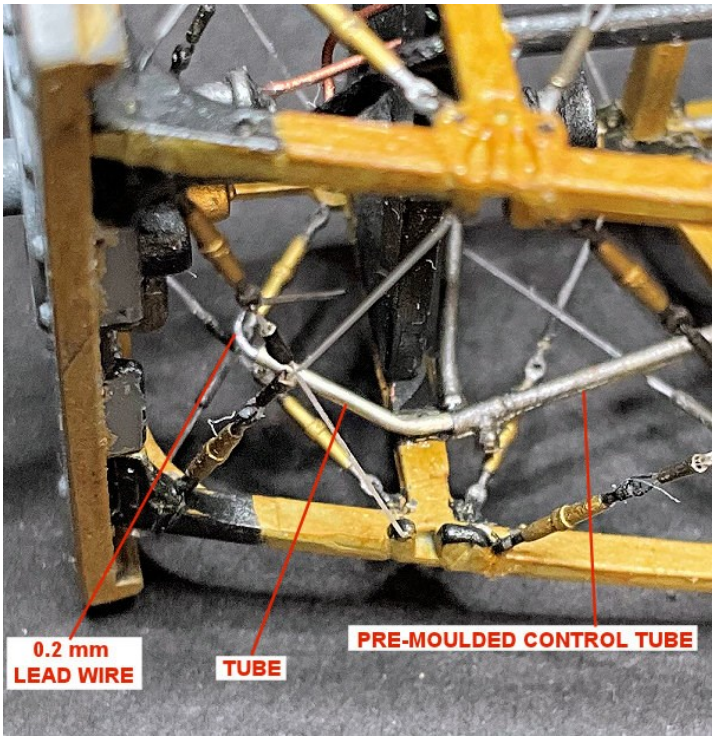
Using thin CA adhesive, secure the lead wire into the tube (at the fine control valve end).

Using thin CA adhesive, secure the tube in position, at the required angle, on the cockpit side frame.

Trim the length of the lead wire such that its straight with its end against the side of the fine control valve.

Using thin CA adhesive, secure lead wire to the fine control valve.

Brush paint the tube with ‘Mr. Colour’ Stainless Steel (213) or similar (to blend the tube with the pre-moulded control tube).



Painting (continued):

Airbrush the following with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar:

Cockpit assembly and rigging

Fuselage halves (internal surfaces)

Fuel tank panel (B15 internal surface)

Fuselage top cover (C4 cockpit wood panel)

Bottom fuselage cover (C8 forward from the large locating ring)

Undershield (A13 internal surface).

Brush on ‘Tamiya’ Clear Gloss (X22) or similar onto the face of the compass (Fig.2) and the instruments on the instrument panel (Fig.5).

NOTE: *The following painting is necessary at this stage of the build, as otherwise the open access panels on the fuselage will allow airbrushed paint to contaminate the internal fuselage details when painting the outside of the fuselage.*

Mask off the outside of the fuselage halves, leaving just the forward side metal panel exposed.

Airbrush prime the exposed areas with gloss black, such as ‘Tamiya’ Gloss Black (X1) or similar.

Airbrush the primed areas with ‘Alclad’ Duraluminium (ALC-102) or similar.

Remove the masking from the fuselage halves.

NOTE: *In the following photograph, the cockpit forward decking panel was incorrectly painted metal. It was corrected later in the build.*

Assembly (continued):

NOTE: *During the following step, guide the two flexible tubes from the underside of the fuel tank carefully between the cross brace rigging and added pipes.*

Position the fuel tank assembly into its locating recesses in the top of the cockpit side frames and engine bulkhead. Guide the flexible tube from the fuel tank sump down towards the fine control valve. Guide the fuel contents indicator pipe over the two oil pipe then up and over the cockpit cross member.

Make sure the fuel tank is fully located.

Cement the fuel tank onto the cockpit side frames and engine bulkhead.

Trim the length of the lead wire from the front of the contents indictor control tube such that its end is against the side of the tube from the fuel tank.

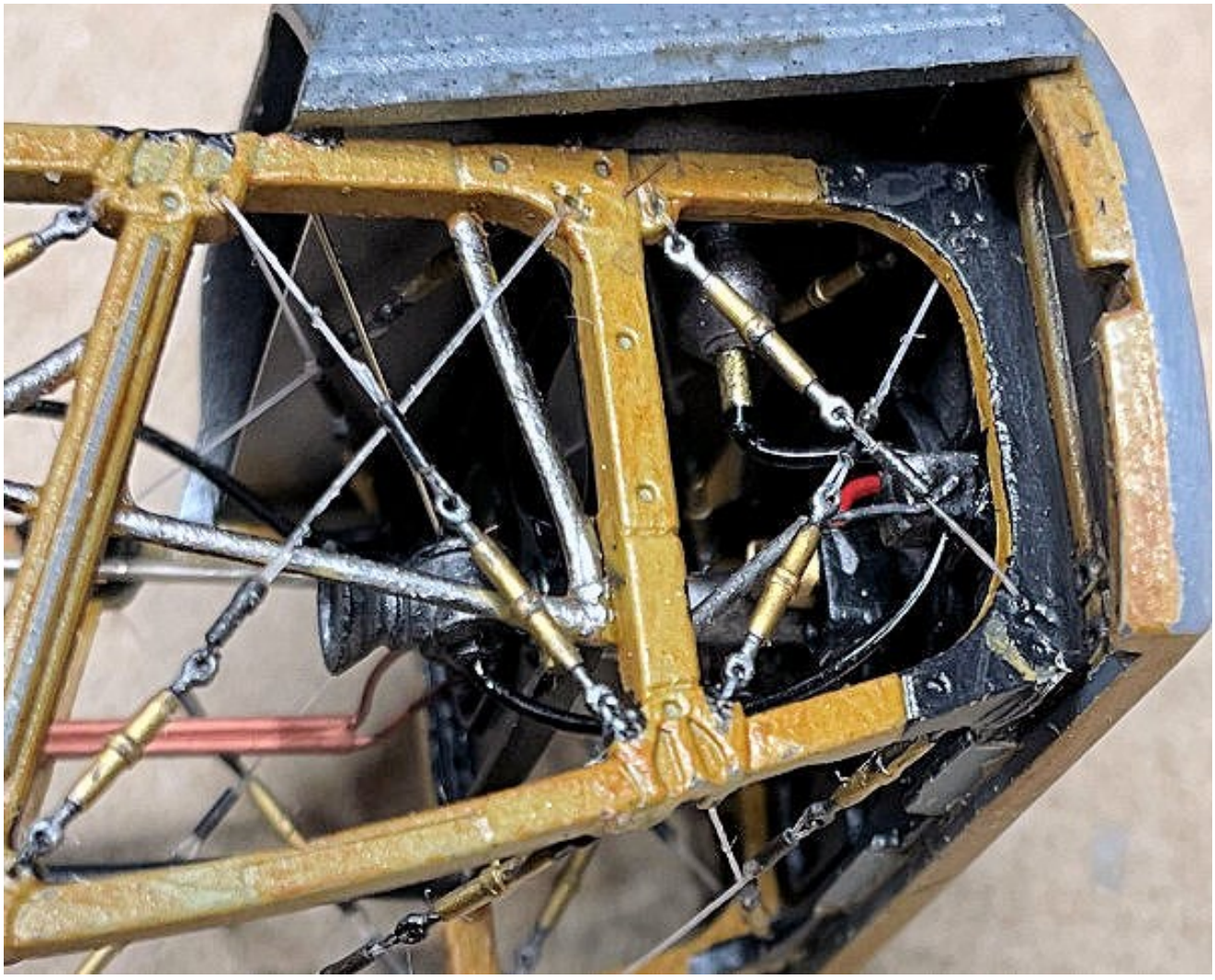
Using thin CA adhesive, secure the lead wire to the tube.

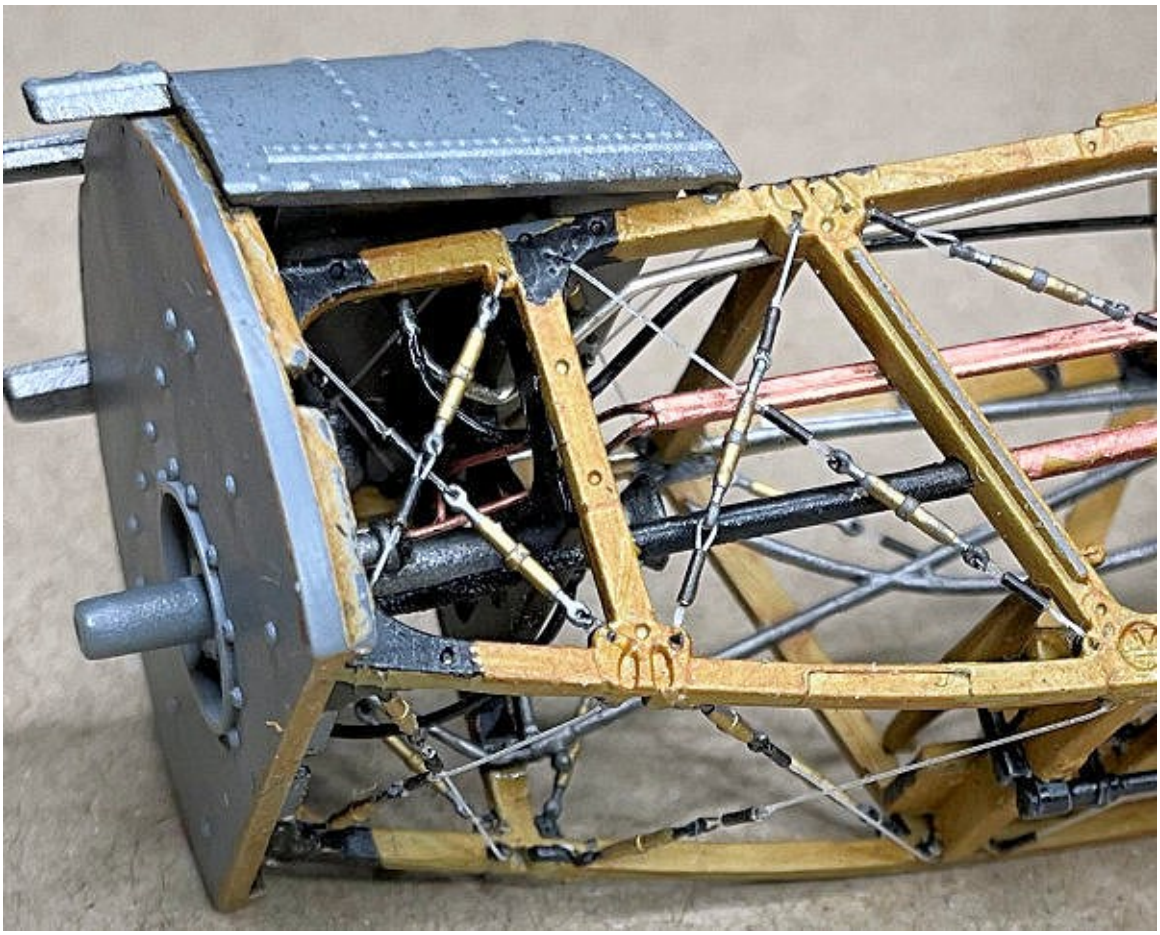
Trim the end of the flexible tube for the fuel contents indicator such that it locates in the cockpit cross member and centrally behind the instrument panel.

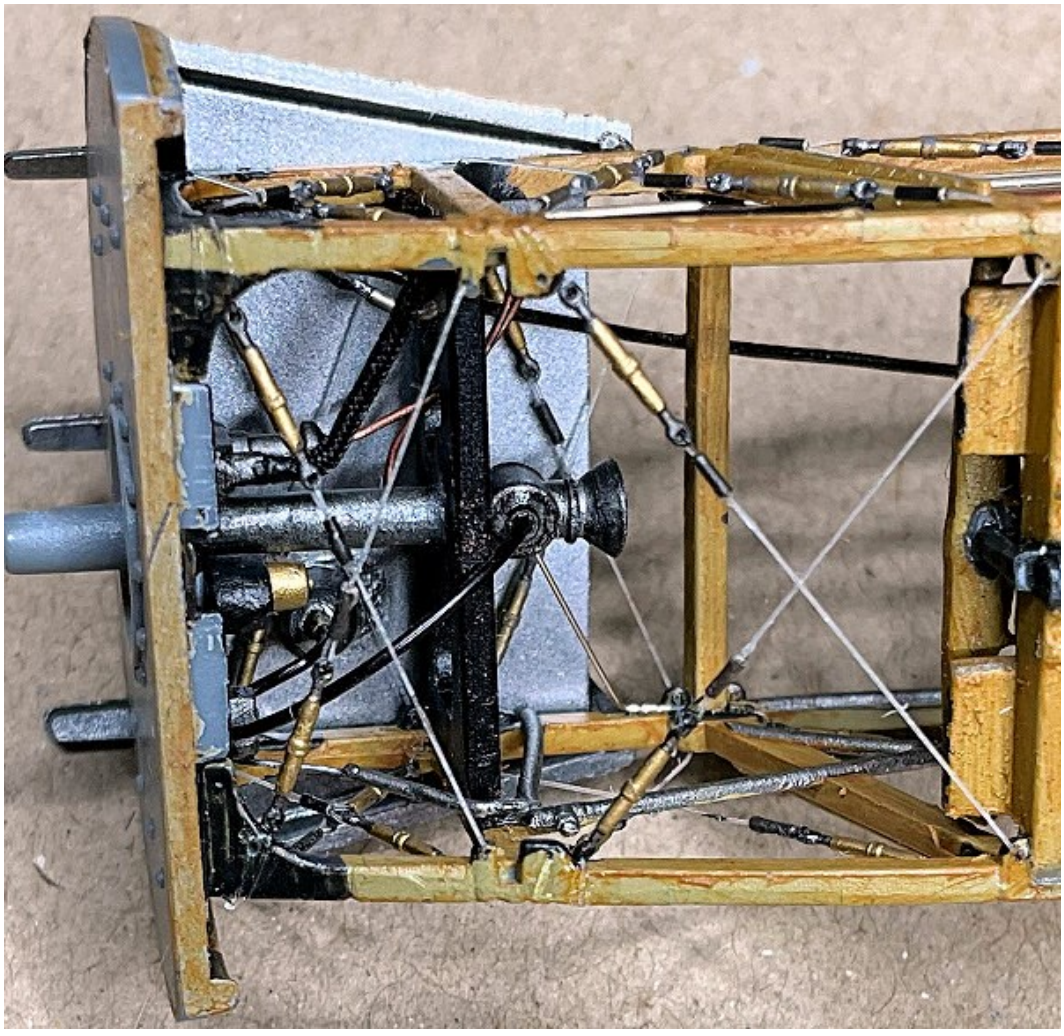
Using thin CA adhesive, secure the flexible tube onto the cockpit cross member.

Pass the end of the flexible tube for the fine control valve through the pre-drilled hole in the valve, then from the underside, loop the end of the tube up and into the pre-drilled hole in the underside of the carburetor.

Using thin CA adhesive, secure the flexible tube into the carburetor.







Modifications (continued):

Fuel tank shut-off cock:

Cut a long length of 0.4 mm diameter Nickel-Silver tube, such as ‘Albion Alloy’s NST04 or similar.

Cut a length of 0.3 mm diameter copper wire or similar.

Wrap the wire around a 0.4 mm diameter rod or tube to create a ‘ring’ shaped end.

Cut away the residual tail of wire and flatten the ring end to align it with the wire.

Cut the wire to leave the ring end with a tail of wire.

Using thin CA adhesive, secure the tail of the wire fully into the end of tube.

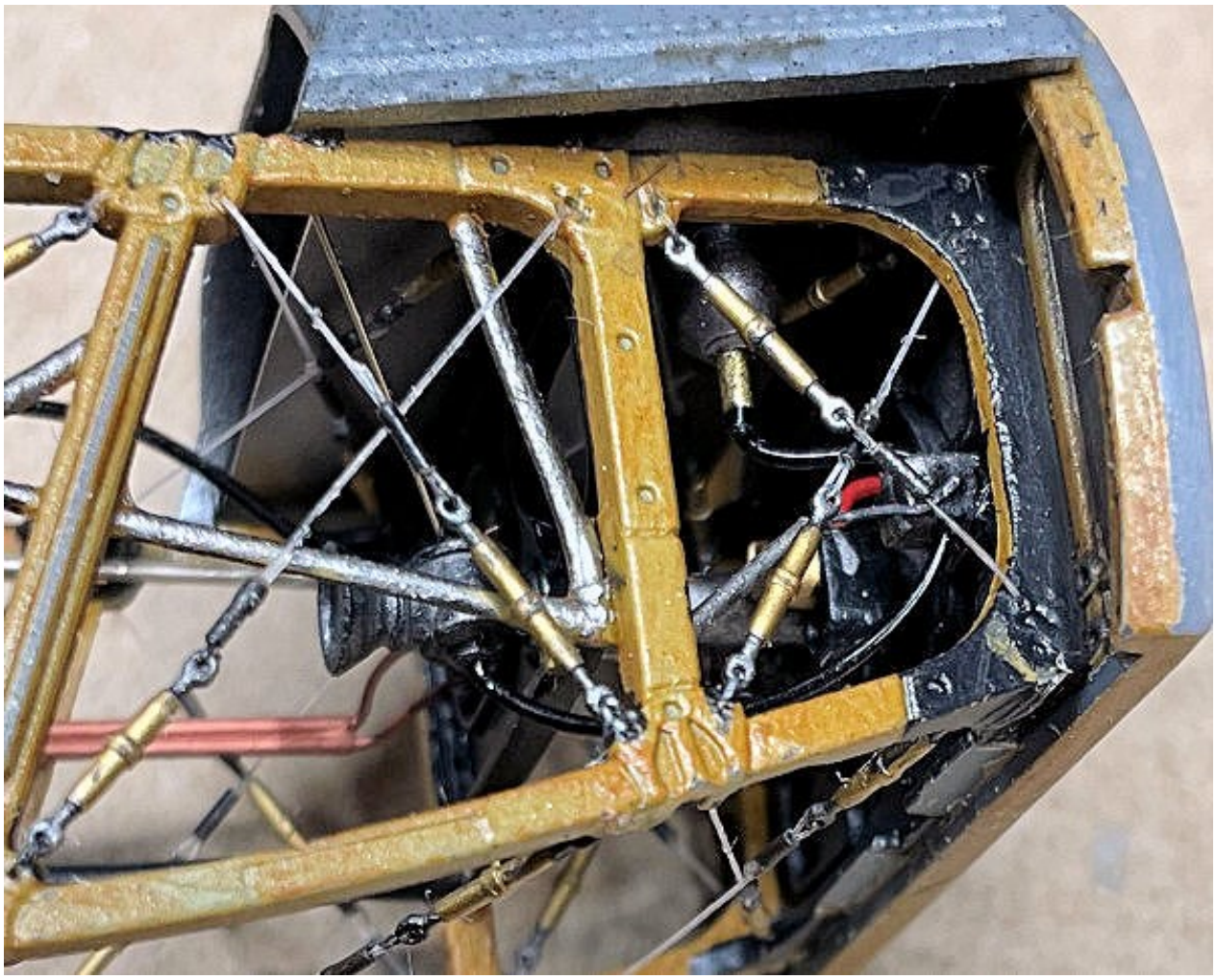
Brush paint the ring with ‘Mr. Colour’ Stainless Steel (213) or similar.

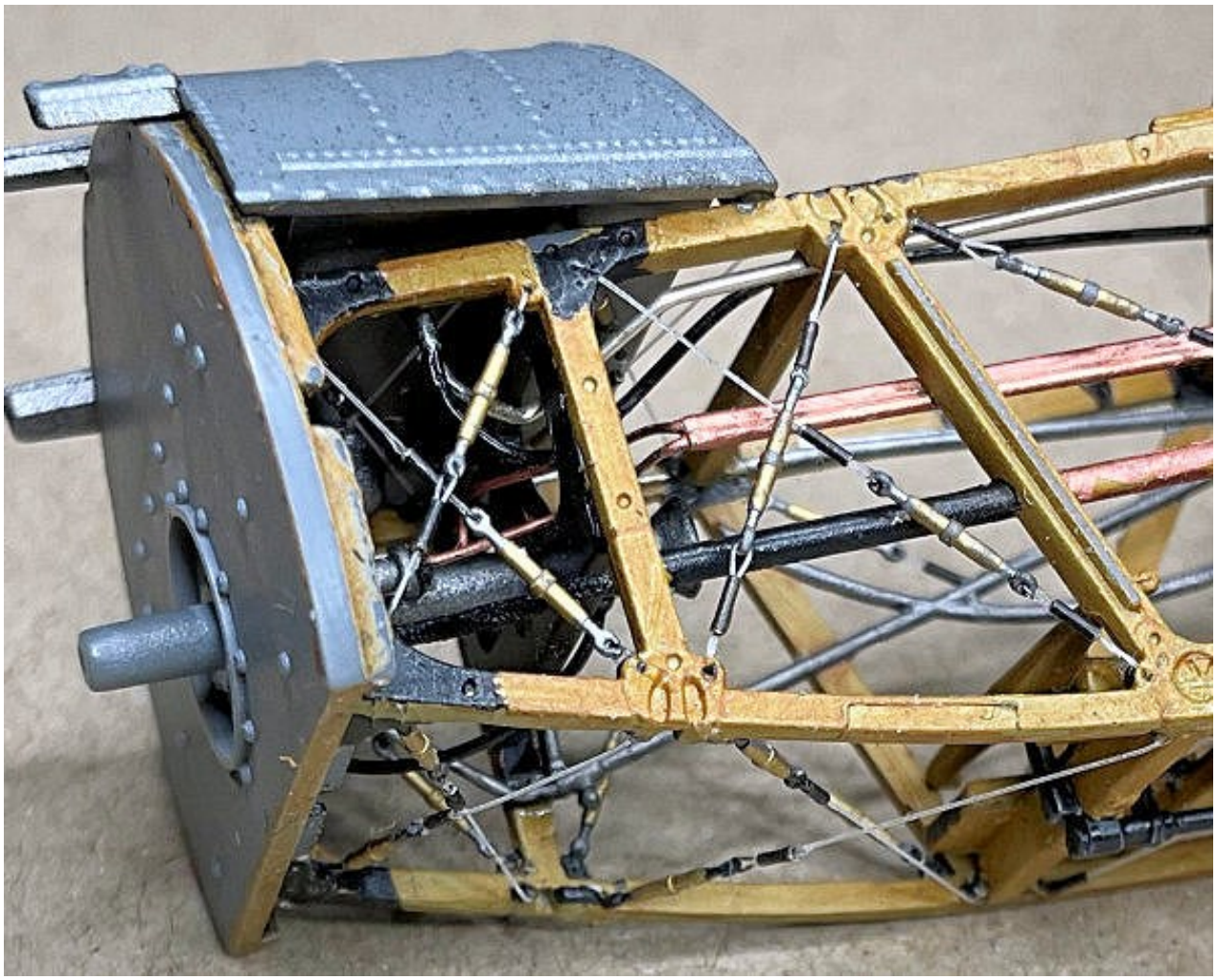
Trim the other end of the tube such that it can rested on the underside of the cockpit cross members with the ring handle just visible under the instrument panel. The front end should be close to the fuel tank sump.

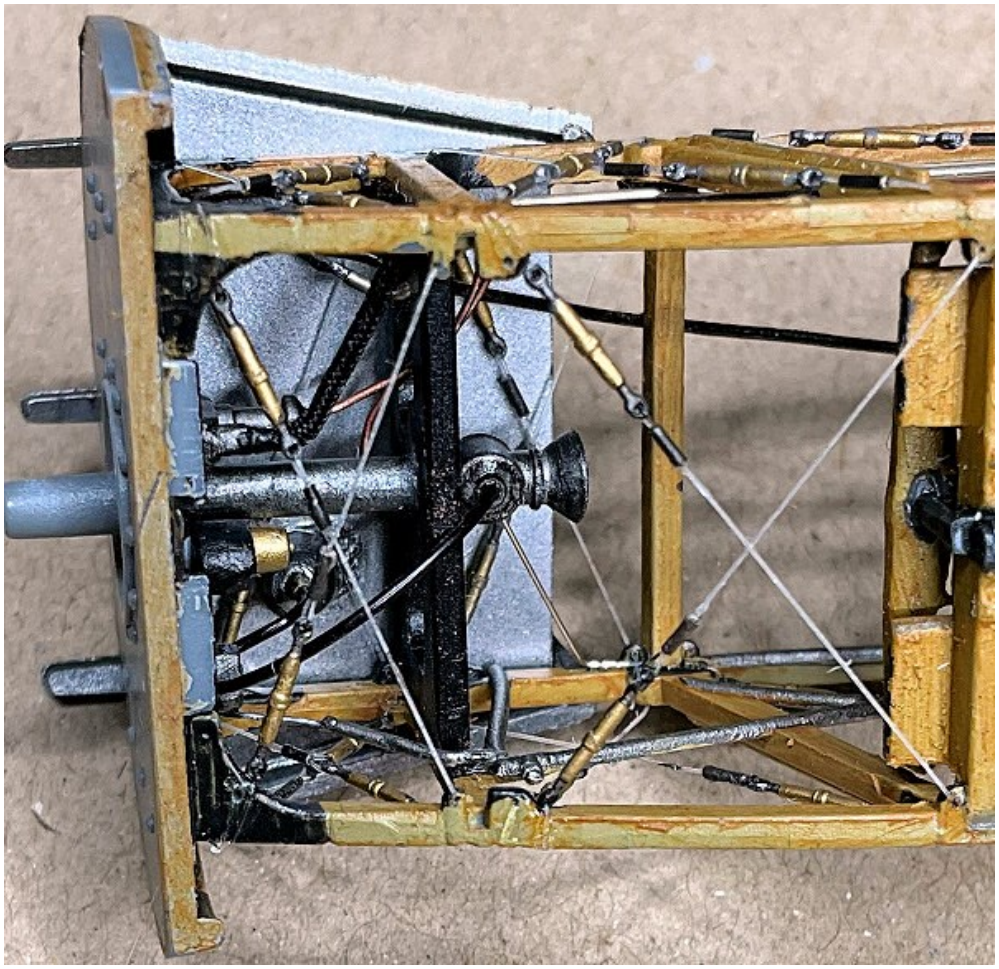
Cut a short length of 0.2 mm diameter lead wire, such as that from ‘PlusModels’ or similar.

Using thin CA adhesive, secure the lead wire (Bowden cable) into the front end of the tube, leaving sufficient to be able to attach it to the tube in the fuel tank sump.

Using thin CA adhesive, secure the tube in position on the underside of the cockpit cross members.







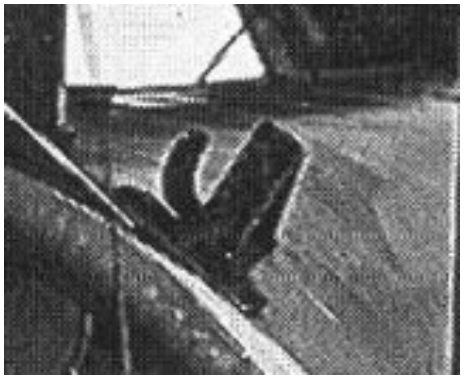
Magneto starter switch:

NOTE: *The photograph of 1260 shows a magneto starter switch, which was fitted externally on the fuselage port side, just forward from the cockpit, as opposed to other Scouts where the switch was located in the cockpit. This may have been done to allow the mechanic to confirm the ignition was switched off prior to 'pulling over' the engine before starting.*

To represent the fairing behind the switch, I sanded a piece of sprue to the required shape then cemented it onto the cockpit decking panel, at the lower rear of the left rear cabane strut. I then added a small round piece of sprue to represent the switch housing. A recess of 0.7 mm diameter was then drilled partly into the centre of the switch housing.

Fuselage gun latch:

NOTE: W*hen fired vertically the Lewis machine gun was pivoted down from the upper wing and the hand grip of the machine gun was latched into a fitting on the starboard side of the cockpit decking panel.*



NOTE: *The gun latch was made from cuttings of spare photo-etch. Refer to the following photograph. The edges of the assembly can, if necessary, be blended together using a fine diamond file, such as that from 'Tamiya'.*

To represent the gun latch:

Cut a strip of just wider than the hand grip of the replacement 'Gaspatch' Lewis machine gun (refer to Part 9 (Weapon) of this build log).

Bend one end to 90 degrees.

Cut two triangles.

Use thin CA adhesive to secure the triangles to the bent end of the strip.

I made the latch lever from a photo-etch control horn from the PART 1:48th scale set.

Use thin CA adhesive to secure the latch lever onto the base plate od the assembly.

The gun latch with be fitted later in this build.

Weathering:

Refer to Part 3 (Weathering) of this build log for more information - apply your desired weathering finish to the parts. I used 'Flory Models' Dark Dirt and Grime fine clay wash on the following:

Dark Dirt:

Fuselage halves (internal surfaces)

Fuel tank panel (B15 internal surface)

Fuselage top cover (C4 cockpit wood panel)

Bottom fuselage cover (C8 forward from the large locating ring)

Undershield (A13 internal surface).

Grime:

Pilots foot boards.

Assembly (continued):

Pilots seat belts:

NOTE: *Refer to Page 7 in the kit instruction manual for guidance.*

Prepare the supplied photo-etch sheet by wiping with such as lacquer thinners, then brush a metal etch, such as 'VMS' Metal Prep 4K or similar.

Cut the two seat belts (PE1 and PE5) from the photo-etch sheet.

Anneal the two belts over a naked flame to soften the metal to make is easier to form. Take care not to overheat and melt the photo-etch.

Airbrush the two seat belts with a grey primer, such as 'AK Interactive' Grey (AK758) or similar.

Brush paint the fabric parts of the two seat belts seat with 'Tamiya' Dark Yellow (XF60) or similar.

Brush paint the belt metal fittings with 'Mr. Colour' Stainless Steel (213) or similar.

Brush paint the leather parts of the seat belts with 'AK Interactive' Leather (AK3031) or similar.

Refer to Part 3 (Weathering) of this build log for more information - apply your desired weathering finish to the pilots seat belts. I used 'Flory Models' Grime fine clay wash.

Bend the longer seat belt over the right side of the seat in a natural pose. Use a cotton bus or similar to reduce the risk of chipping or cracking the paint.

Bend the retaining strap of the longer belt around the cockpit right rear vertical member.

Bend the shorter seat belt over the left side of the seat in a natural pose. Use a cotton bus or similar to reduce the risk of chipping or cracking the paint.

Bend the retaining strap of the shorter belt around the cockpit left rear vertical member.

Secure the seat belts in position on the pilots seat and around the frame vertical members using thin CA adhesive.

NOTE: *During closing of the fuselage, make sure the rudder and elevator control lines are kept clear of glued joints. Also all mating surfaces and recesses etc are clear of primer and paint.*

Fully locate the cockpit assembly into its locating recess at the rear and the two recesses (for the outside of the cockpit side frame) in the side of the half.

Cement the cockpit assembly in position in the left fuselage half.

Using thin CA adhesive, secure the two rudder and elevator lines, under tension, onto the added plastic card on the bottom of the left fuselage half.

Fully locate the right fuselage half onto the left fuselage half, making sure the cockpit assembly fits fully into its locating recesses in the right fuselage half. Also that the fuselage locating ‘pegs’ are aligned and fully located.

Keeping the fuselage halves together, apply cement along the top and bottom seam joints from the cockpit rearwards and allow the cement to set.

Make sure the front of the fuselage halves fully locate together, including between the fuselage halves and the bottom/top edges of the fitted fuel tank panel. Also, that the fuselage halves fully locate into their locating recesses in the sides of the engine bulkhead.

Cement the fuselage halves together at the fuel panel and engine bulkhead.

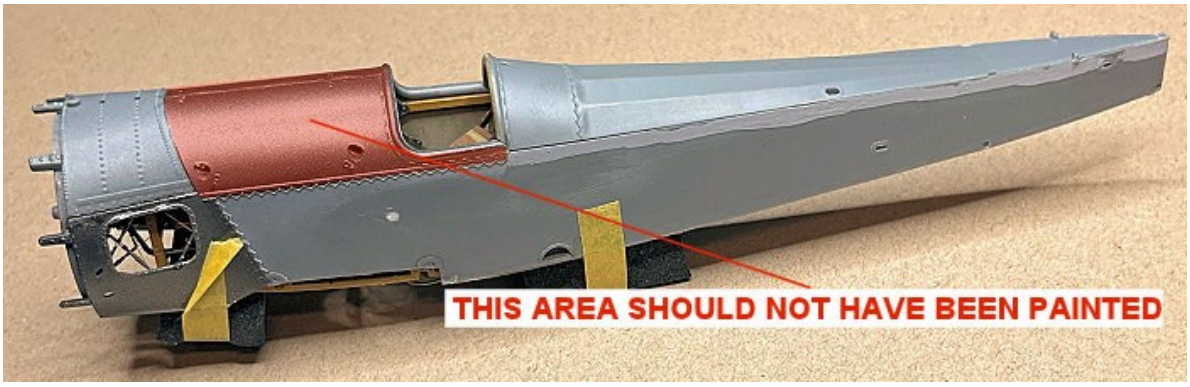
Fully locate the fuselage bottom cover into the fuselage with its two locating rings inserted into their location holes.

Cement the fuselage bottom cover in position in the fuselage.

NOTE: *At this stage of the build, it’s best to protect the protruding control column under the cockpit from possible damage. Tape a piece of sponge to the underside of the fuselage, each side of the control column. This will protect the bottom of the control column.*

Fully locate the fuselage top cover (C4) into the fuselage with it two locating pegs inserted into their locating holes in the fuselage.

Cement the fuselage top cover in position in the fuselage.



Check all joints and seams for any gaps. If found, fill the gaps with such as ‘Mr. Surfacer 500 or 1000 or a putty, such as ‘De-Lux Materials’ Perfect Plastic Putty or similar. **Fill and sand the locating recess for the oil tank filler** (D16), in the fuselage top cover (C4) (it’s not required for this particular aircraft).

Carefully sand any filled joints or seams, making sure to avoid damaging and adjacent surface details.

NOTE: *During the following step, I found I had to remove the inboard end of the pre-moulded ‘zig -zag’ on the top surface of the left lower wing, at the wing root.*

Test fit the lower wing into the underside of the fuselage, making sure the pre-moulded cross member on the centre section of the wing fully locates with its recesses in the bottom of the cockpit side frames.

With the wing in position, test fit the fuselage under shield panel. It locates into its recess in the bottom of the engine bulkhead and against the bottom sides of the engine side panels, Also at the front edge of the lower wing centre section.

Remove the under shield panel.

Cement the lower wing into the fuselage.

Cement the under shield into the fuselage and engine bulkhead.

NOTE: *When removing the fuselage stitching not required for this particular model (step 27 of the kit instructions, I accidentally removed the side stitching below the cockpit rear decking panel. This was replaced using 'Archer' WW1 resin stitching (AR88004).*

Painting (continued):

Mask off the fuselage leaving only the forward and underside metal panel exposed. Also blank off any locating holes or openings.

I used use sharpened wood toothpicks to block holes

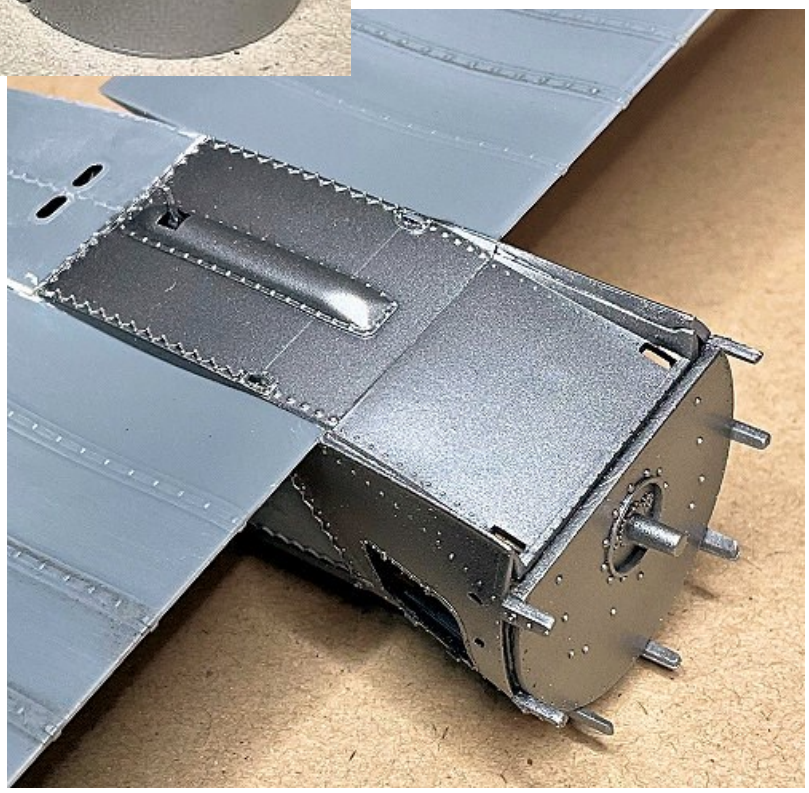
Small pieces of kitchen food wrap (Clingfilm) pushed into openings

Rolled ‘worms’ of ‘UHU White Tack’ around the cockpit and open side panels with food wrap lightly pressed into the worms.

Airbrush the engine cowl (B4) and the fuselage exposed areas with a light coat of black primer, such as ’Tamiya’ Gloss Black (X1) or similar.

Airbrush the engine cowl and the fuselage exposed areas with light coat of ‘Alclad’ Duraluminium (ALC-102) or similar.

Remove all masking and blocking materials.



Assembly (continued):

Dry fit the prepared engine assembly onto it locating spigot on the front of the engine bulkhead, making sure the locating lug on the engine ignition distributer locates into its recess on the bulkhead.

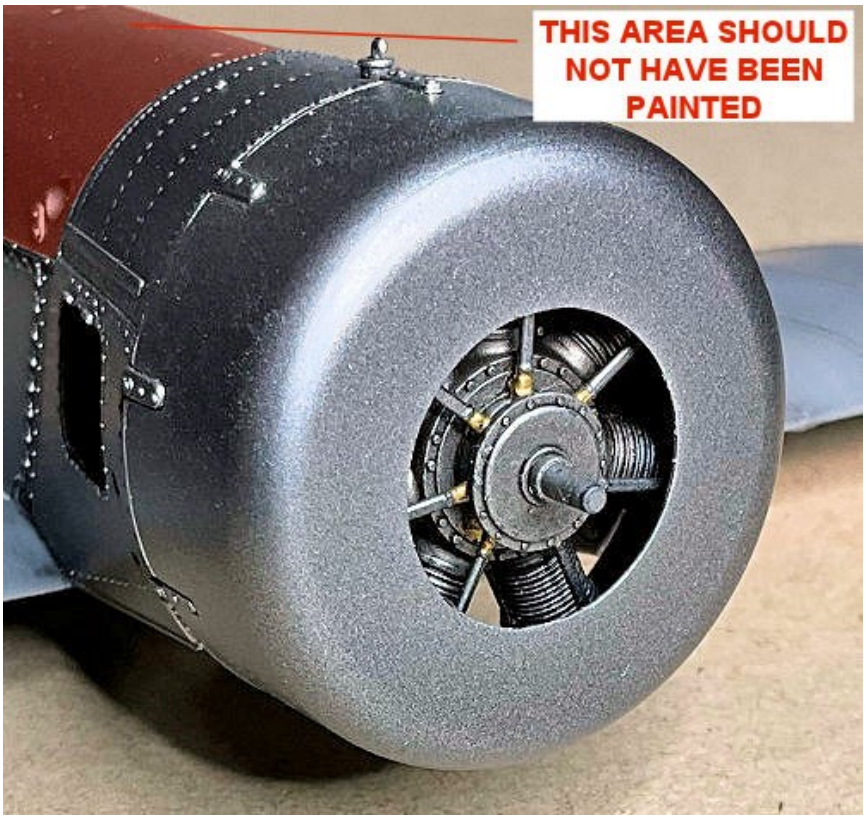
Test fit the engine cowl over the located engine and onto the front of the fuselage.

If the cowl can't be fitted easily, sand the tops of the valve levers on the top of the engine cylinders to enable the cowl to fully locate against the engine bulkhead.

Remove the cowl and the engine.

Cement the engine onto the engine bulkhead, making sure it fully locates.

Cement the engine cowl over the engine onto the front of the fuselage.



PART 12
PREPARATION FOR EXTERNAL RIGGING

PART 12 - PREPARATION FOR EXTERNAL RIGGING

Preparation:

NOTE: *At this stage of the build it's best to pre-rig as much of the external rigging wires and flight control cables locations as possible, as access will be restricted when the model is assembled.*

Refer to Part 6 (Rigging) of this build log and pages 9, 11, 12, 14 to 17 of the kit instruction manual for more information.

The kit parts have some pre-moulded rigging locations. If drilling additional rigging points into the model, take care to not drill the holes too close to strut locations.

General:

The tension of the structural rigging was achieved by adjusting the turnbuckle fitted at one end of the rigging wire. The turnbuckles had threaded 'eye' ends that were left and right handed threads. Rotating the centre barrel of the turnbuckle would either screw out or in the threaded ends, tightening or slackening the tension of the rigging wire. One 'eye' end of each turnbuckle was fixed with a clevis pin to a bracket attached to the structure of the aircraft. The opposite 'eye' end was attached to the rigging wire.
To best represent these turnbuckles, I used the 'Gaspatch' 1/48th scale metal turnbuckles (Type B), the tangs of which were partially inserted into drilled holes in the model.

The only exception is the aileron control cable under the upper wing centre section. That cable has a 'Gaspatch' 1/48th scale metal turnbuckle (Type C).

The non-turnbuckle ends of the rigging lines are attached to the model with ‘Gaspatch’ 1/48th scale metal Anchor Points.

Required flight control cables:

Flight control cables:

Rudder, elevator and aileron control cables.

Rudder Control cables:

NOTE: *The rudder control horn is kit part D17.*

Drill out the pre-moulded holes in the ends of the control horn to 0.3 mm diameter.

Using the example at the beginning of this Part of the build log, but only with 0.4 mm diameter blackened tubes (no turnbuckles required), attach a long length of 0.08 mm diameter mono-filament, such as ’Steelon’ or Stroft GTM’, to each end of the rudder control horn.

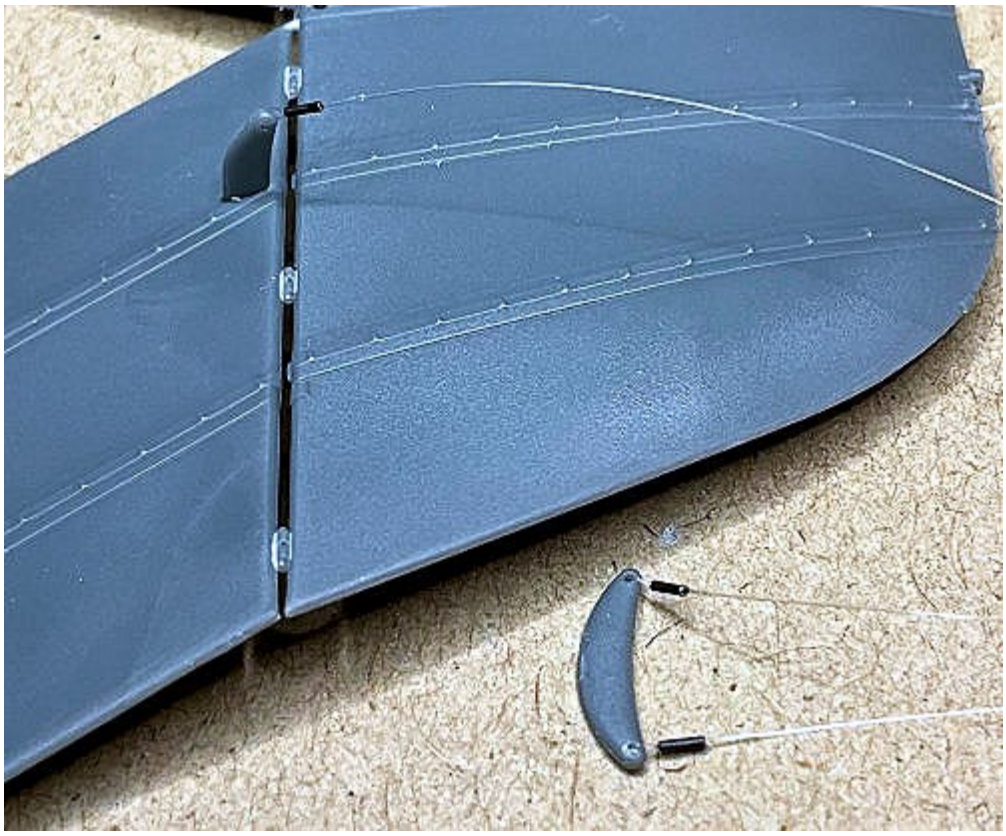
Elevator control cables:

NOTE: *The elevator control horns are kit parts D15.*

Drill out the pre-moulded holes in the ends of the two control horns to 0.3 mm diameter.

Using the example at the beginning of this Part of the build log, but only with 0.4 mm diameter blackened tubes (no turnbuckles required), attach a long length of 0.08 mm diameter mono-filament, such as 'Steelon' or Stroft GTM', to each end of the elevator control horns.

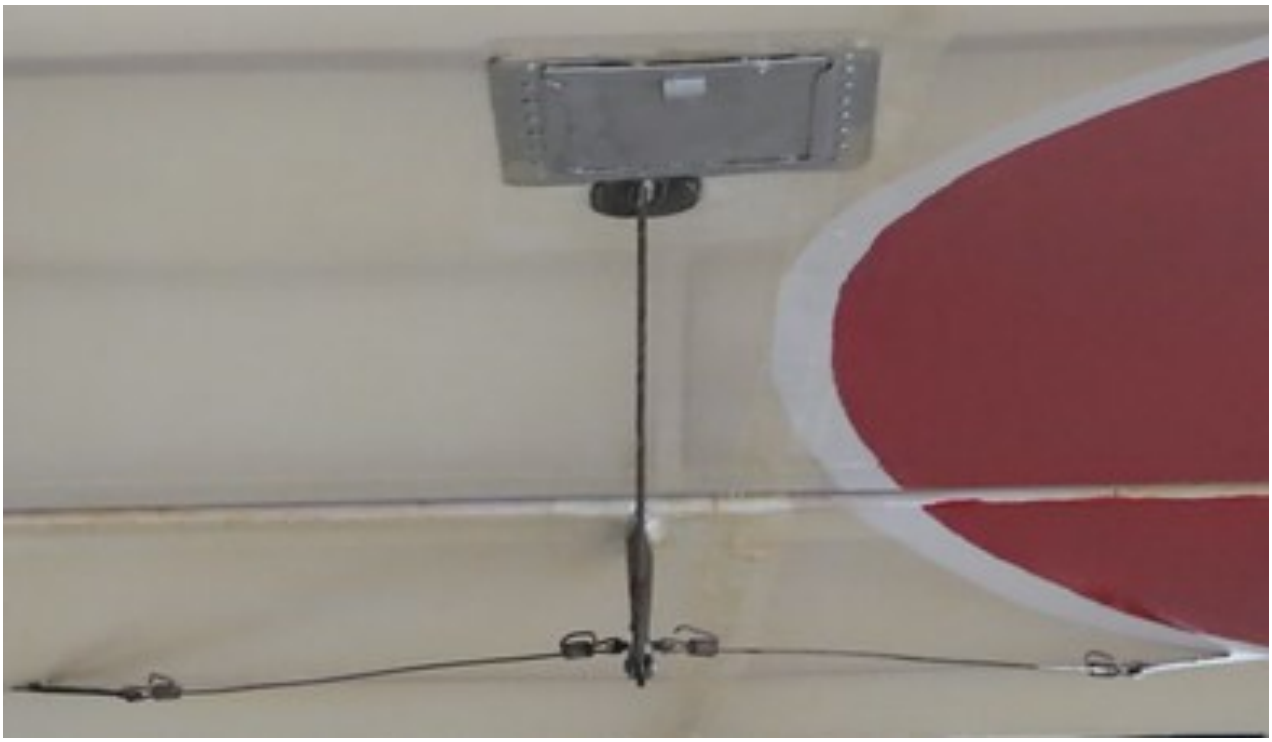
NOTE: *The pre-rigged control horns will pass through the locating holes in the elevator.*



Aileron control cables:

Upper and lower wings:

NOTE: *The aileron control horns are kit parts D14.*



Cut away the small lugs on each side of the four control horns. These were intended to represent the attachments for the two connecting aileron wires.

Using the ‘witness’ marks from the removed lugs as guides, drill a hole of 0.3 mm diameter through the four control horns.

Drill out the pre-moulded holes in the ends of the four aileron control horns to 0.3 mm diameter.

Upper control horns:

NOTE: *When fitted through the control horn, each side of the line should be equal in length. The line should also be long enough such that when fitted, both sides of the line can span from the control horn to the aileron, then vertically between the wings, though the opposite aileron to its control horn.*

Cut two long lengths of 0.08 mm diameter mono-filament, such as ’Steelon’ or Stroft GTM’.

Pass a line through the drilled hole in two of the control horns (where the lugs were removed).

Slide a 0.4 mm diameter blackened tube onto both ends of both lines.

Make sure both sides of the lines are the same distance from the control horns.

Slide the two tubes up to, **but not touching**, the control horns.

Secure the tubes onto the lines using thin CA adhesive.

Lower control horns:

Cut two long lengths of 0.08 mm diameter mono-filament, such as ’Steelon’ or Stroft GTM’.

Pass a line through the drilled hole in the ends of the other two control horns.

Slide a 0.4 mm diameter blackened tube onto both ends of both lines.

Pass the lines back and through the tubes.

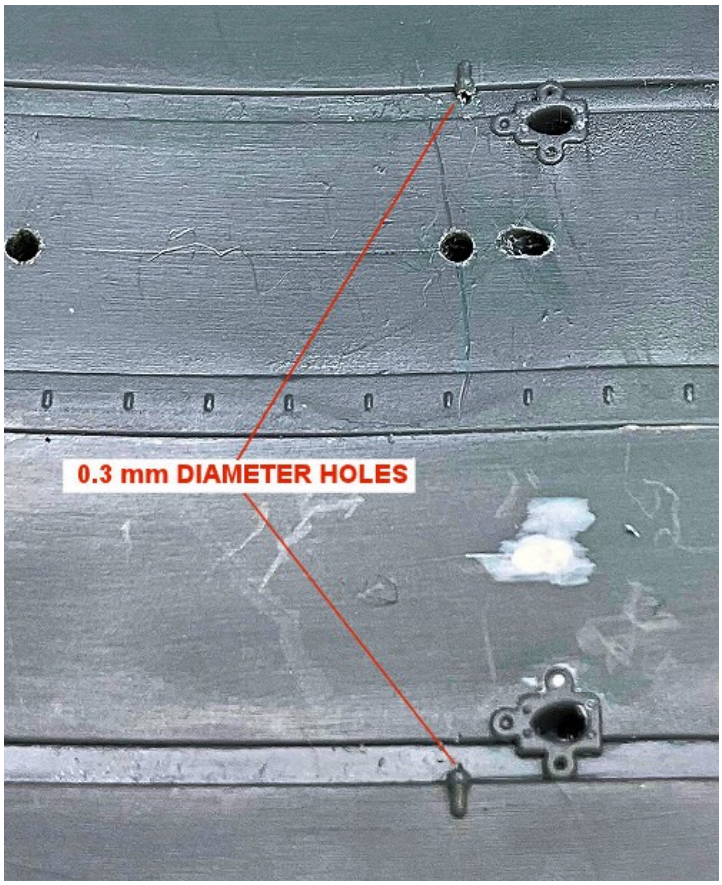
Slide the two tubes up to, **but not touching**, the control horns.

Keeping the lines taut, secure the tubes onto the lines using thin CA adhesive.

Upper wing centre section:

Using as guides the pre-moulded attachment plates, either side of the underside of the upper wing centre section, drill holes of 0.3 mm diameter at a shallow angle outboard and into, **but not through**, the wing at the pre-moulded cable location lugs.

These holes will be used to fit the aileron control cable, with turnbuckle, later in this build.



Wings and ailerons:

NOTE: *The control cables from the control horns on the ailerons entered to top surface of the upper wing and the undersides of the lower wings.*

Use the pre-moulded locating point on the top surface of the upper wing as guides and drill holes of 0.3 mm diameter into, **but not through**, the wing. The holes should be drill at the angle required to align with the control horn on the aileron (when fitted).

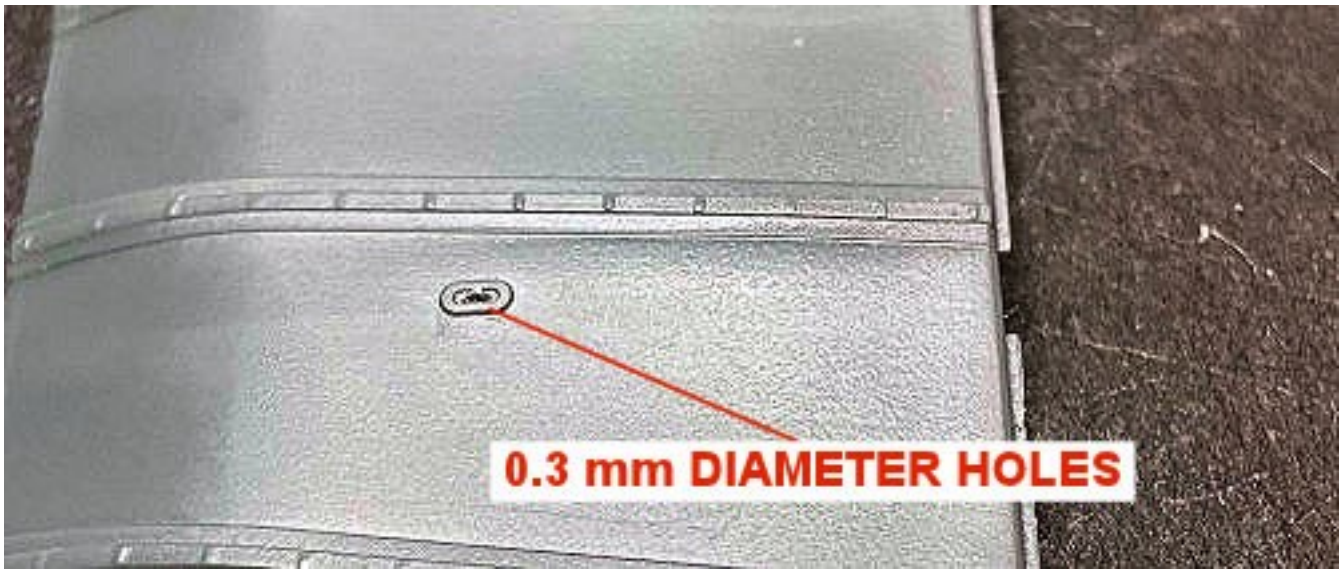
Use the pre-moulded locating point on the undersides of the lower wings, at the rear of the access panels and drill holes of 0.3 mm diameter into, **but not through**, the wings. The holes should be drill at the angle required to align with the control horn on the aileron (when fitted).

Ailerons:

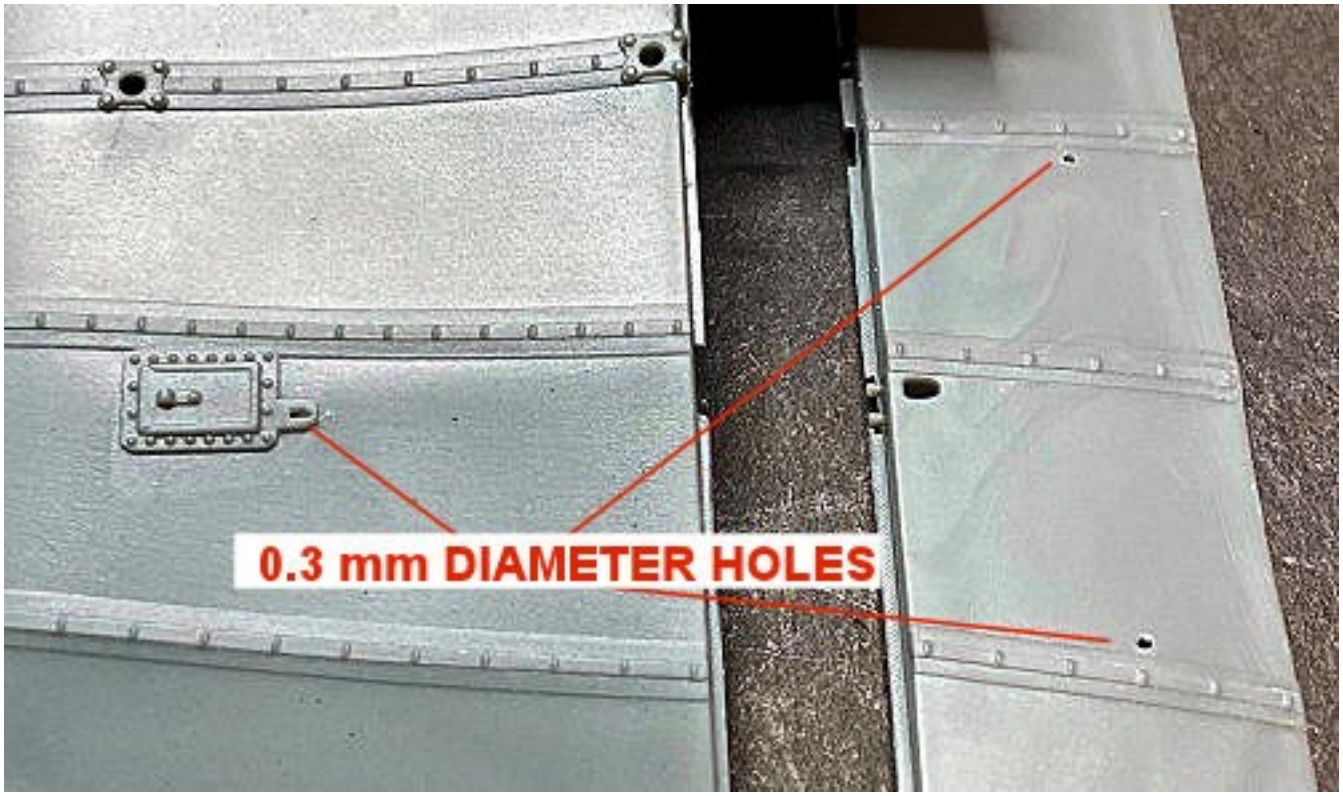
NOTE: *The ailerons on each side of the wings were controlled by two separate cables, which were passed through the ailerons to the rear edge of the aileron control horns.*

Use the pre-moulded locating points on the four ailerons and drill holes of 0.3 mm diameter through the ailerons.

Upper wing



Lower wings and ailerons



Required structural wires:

Structural rigging wires:

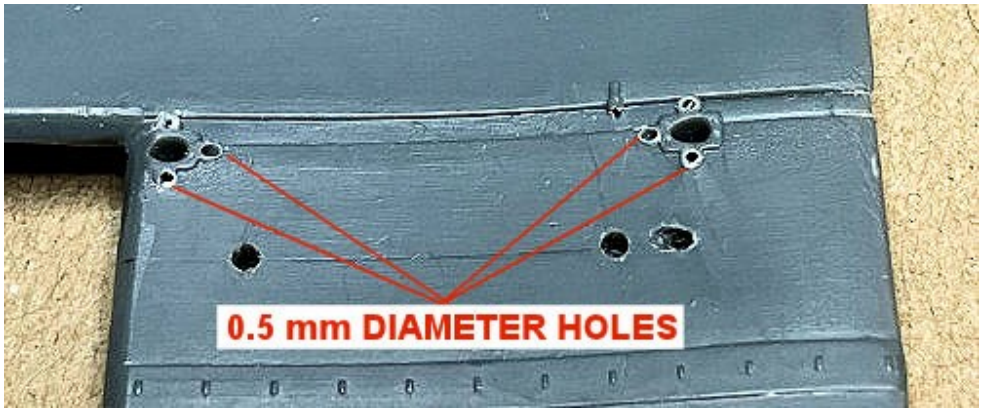
Cabane strut bracing wires
Twin rear and forward flying wires
Single rear and forward landing wires
Incidence wires between interplane struts
Upper and lower wing drag wires
Landing gear bracing wires.

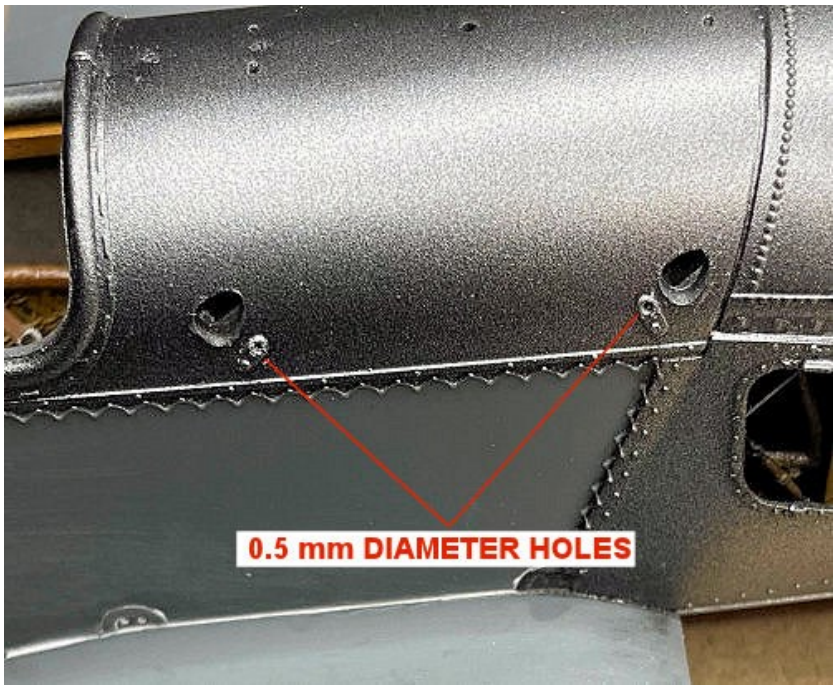
Cabane strut bracing wires:

NOTE: *The locating holes for the cabane strut bracing wires were drilled through the fuselage decking panel earlier in this build (Part 11 - Fuselage). The metal 'Gaspatch' 1:48th scale turnbuckles (Type B) used require a 0.5 mm diameter locating hole, due to the size of the flat 'tang' on the turnbuckles.*

Drill two holes of 0.5 mm diameter through both sides of fuselage decking panel. Use as guides the pre-moulded locating points in the bracket mountings for the cabane struts.

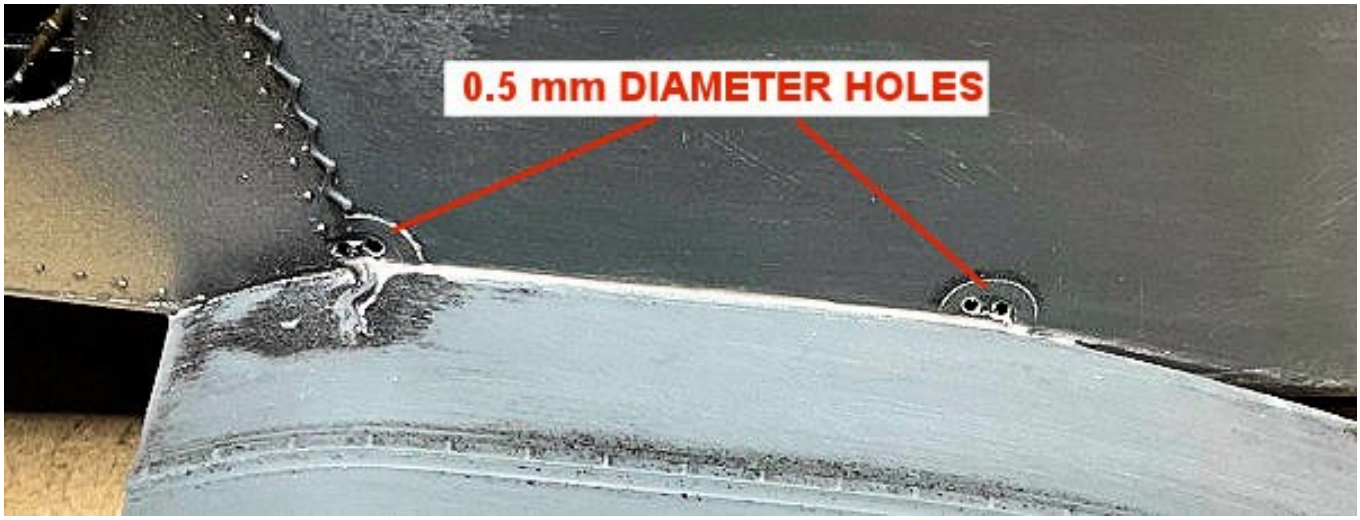
Drill eight holes of 0.5 mm diameter into, **but not through**, the underside of the upper wing centre section. Use as guides the pre-moulded locating points in the bracket mountings for the cabane struts. The holes should be drilled at the angle so the bracing lines will align with the pre-drilled holes in the top and sides of the fuselage decking panel.



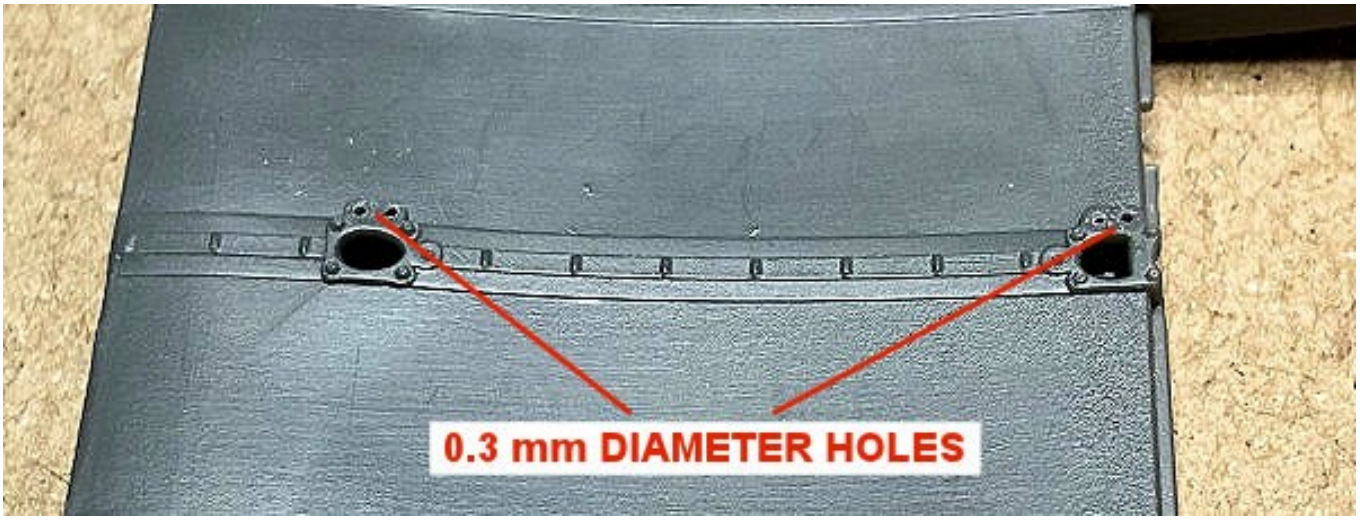


Twin rear and forward flying wires:

Drill two pairs of holes of 0.5 mm diameter through both sides of fuselage at the lower wing roots. Use as guides the pre-moulded locating points in the bottom edge of the fuselage. The holes should be drill at the angle required to align with the tops of the interplane stuts (when fitted).



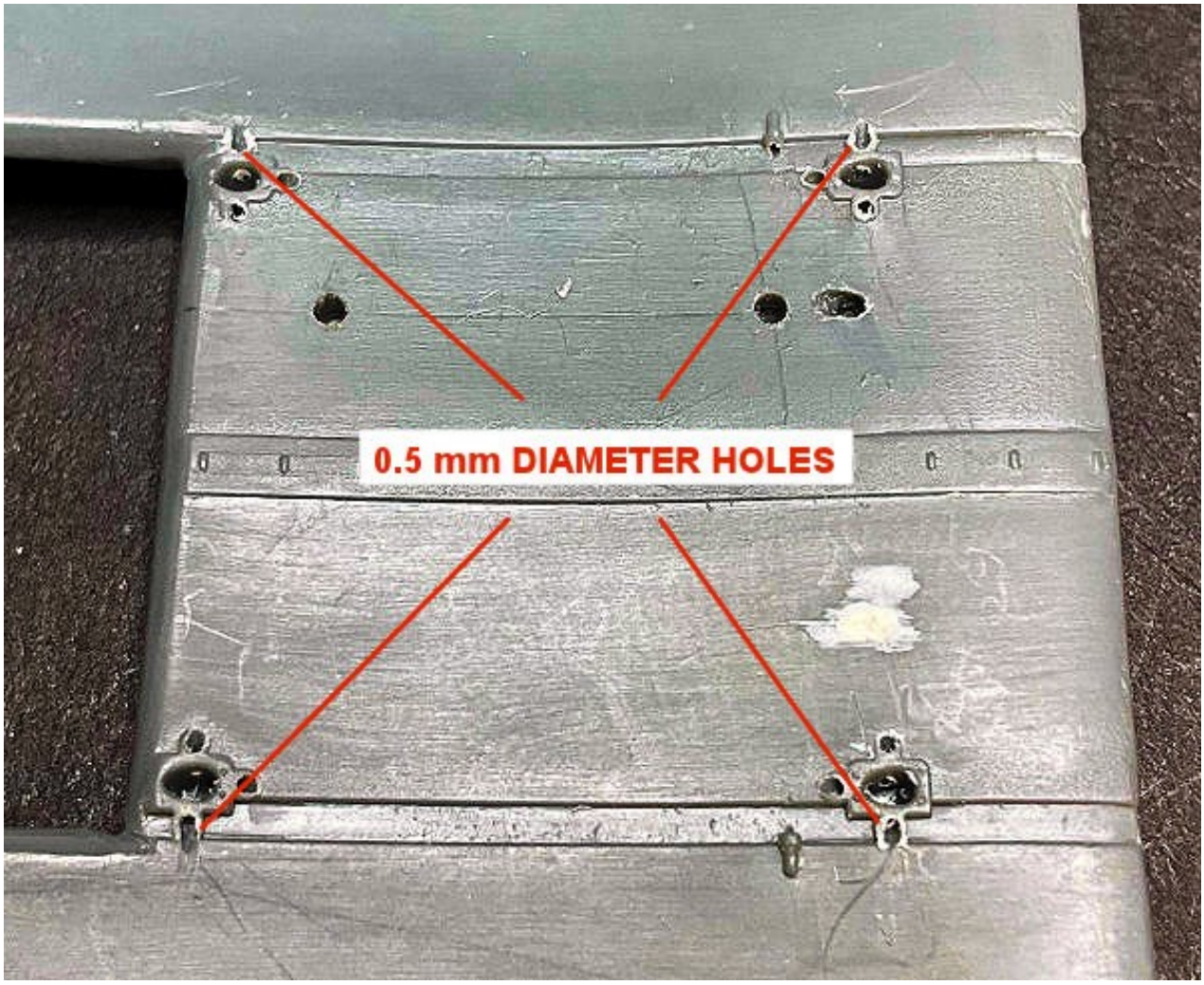
Drill two pairs of holes of 0.3 mm diameter into, **but not through**, the underside of the upper wing. Use as guides the pre-moulded locating points inboard from the locating recesses for the two interplane struts.

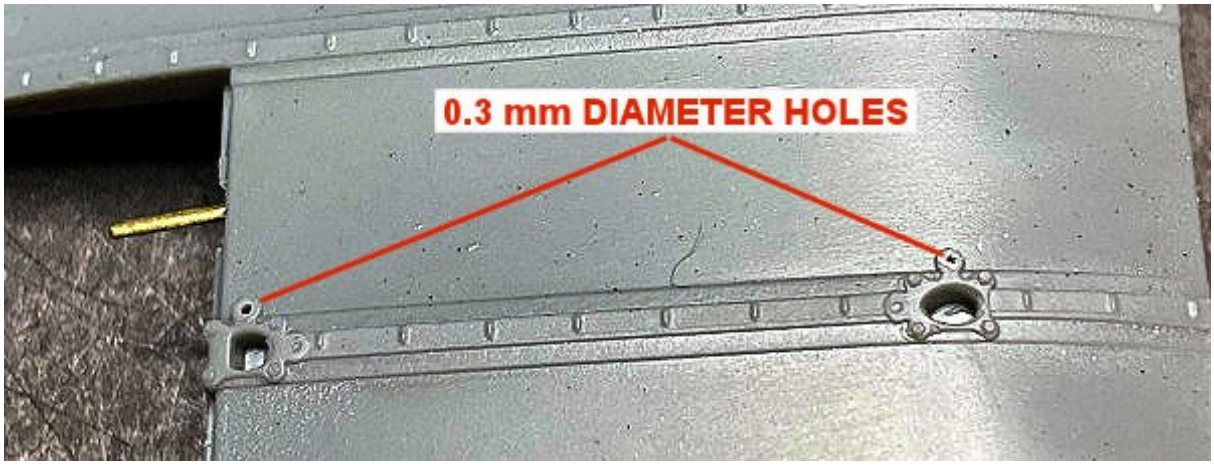


Single rear and forward landing wires:

Drill four holes of 0.5 mm diameter into, **but not through**, the underside of the upper wing centre section. Use as guides the pre-moulded locating points outboard from the locating recesses for the cabane struts. The holes should be drill at the angle required to align with the bottom of the interplane stuts (when fitted).

Drill holes of 0.3 mm diameter into, **but not through**, the top surface of the lower wings. Use as guides the pre-moulded locating points inboard from the locating recesses for the interplane struts.



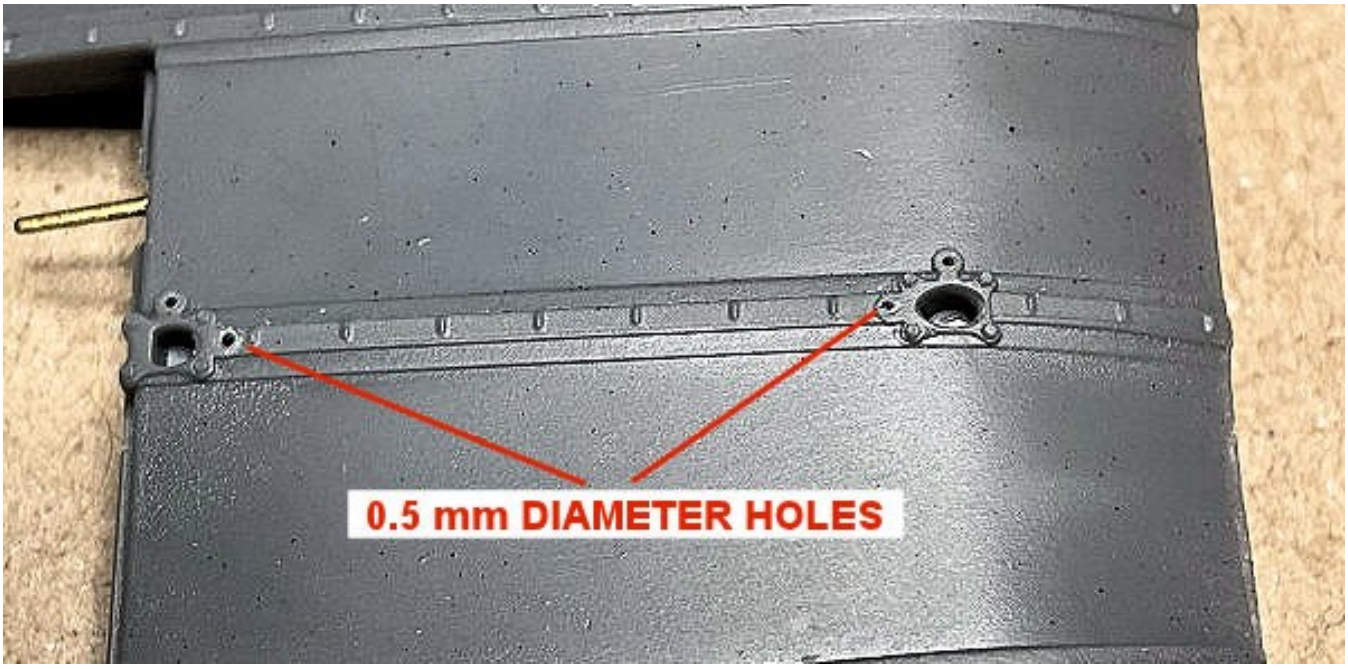


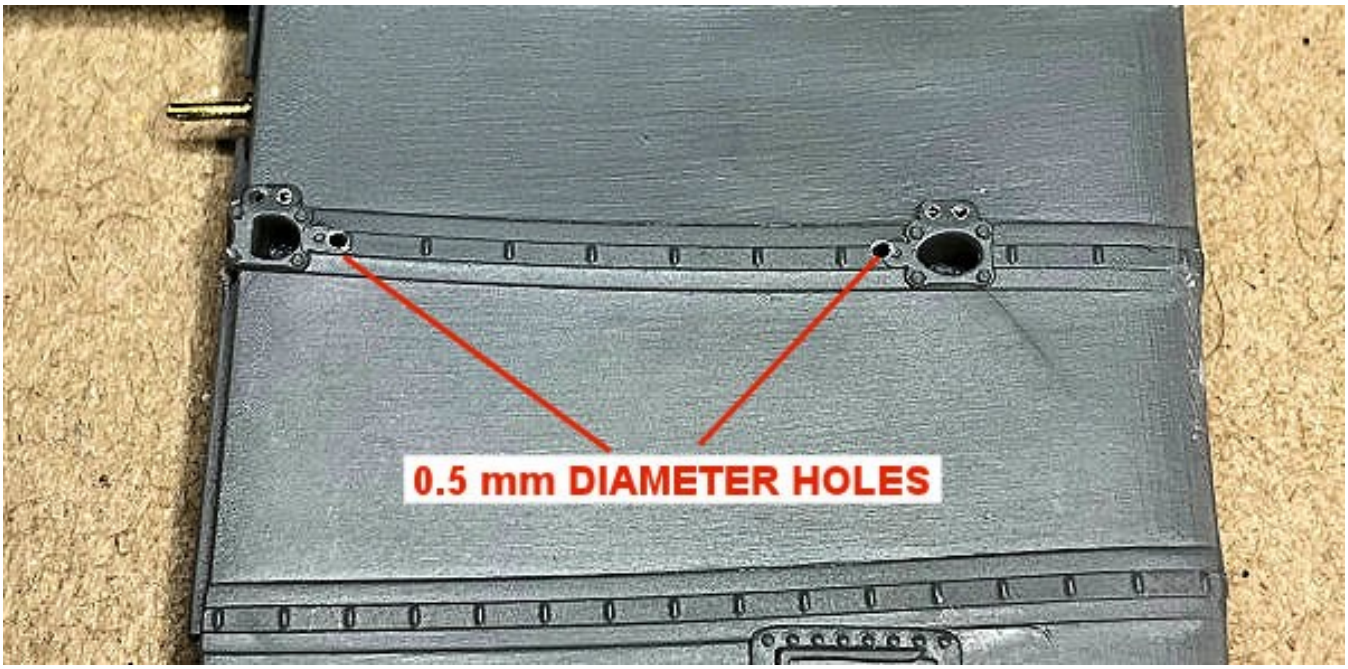
Incidence wires between interplane struts:

Drill holes of 0.5 mm diameter into, **but not through**, the underside of the upper wing. Use as guides the pre-moulded locating points between the locating recesses for the interplane struts. The holes should be drill at the angle required to align with the bottom of the interplane stuts (when fitted).

NOTE: *Holes drilled are 0.5 mm diameter as for these points, 0.4 mm diameter tube will be used.*

Drill holes of 0.5 mm diameter into, **but not through**, the top surface of the lower wings. Use as guides the pre-moulded locating points between the locating recesses for the interplane struts. The holes should be drill at the angle required to align with the tops of the interplane stuts (when fitted).

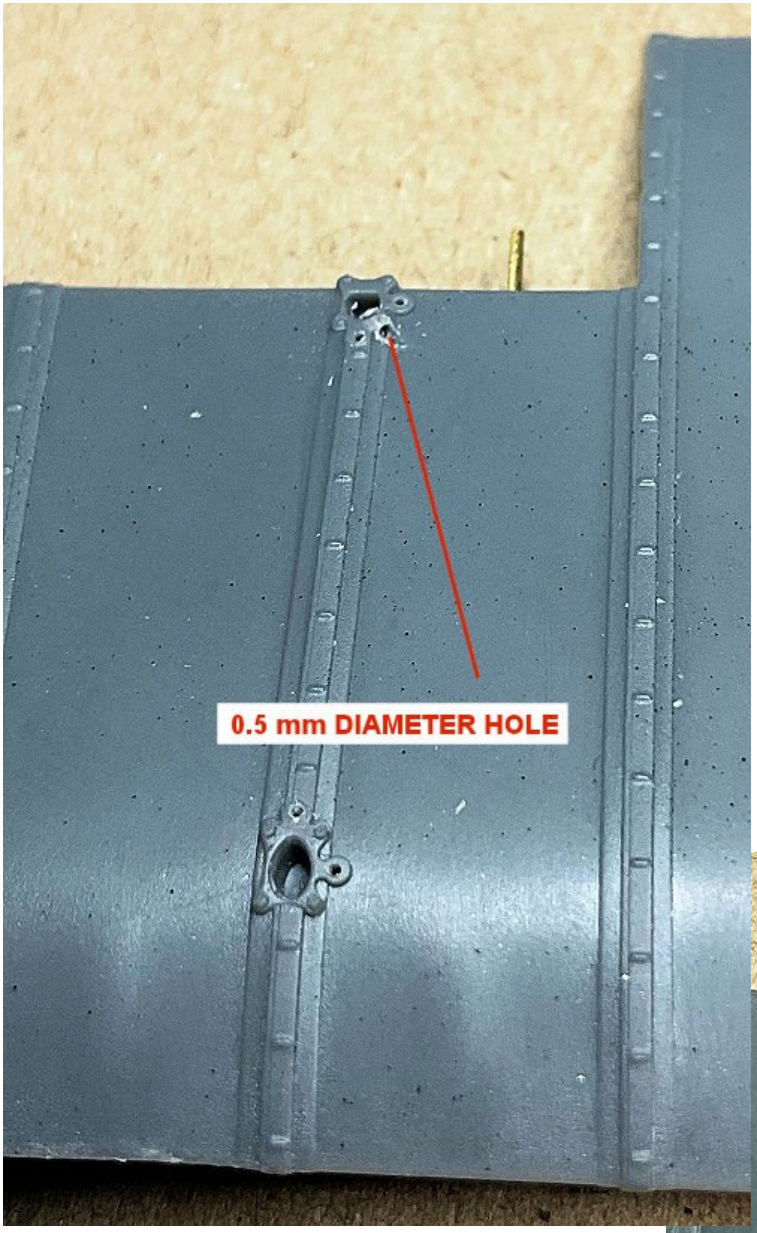




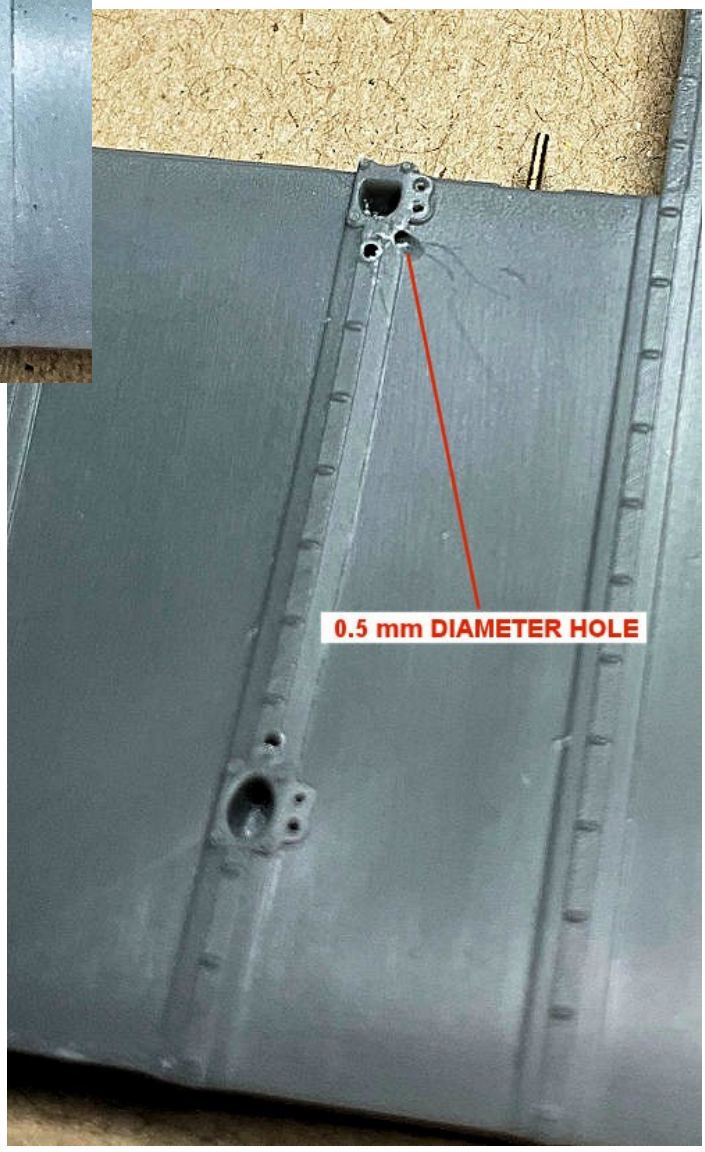
Upper and lower wing drag wires:

Drill holes of 0.5 mm diameter into, **but not through**, the underside of the upper wing. Drill the holes into the corners of the brackets for the rear interplane struts. The holes should be drill at the shallow angle required to align with the upper rigging hole in the fuselage forward side panels.

Drill holes of 0.5 mm diameter into, **but not through**, the top surface of the lower wings. Drill the holes into the corners of the brackets for the rear interplane struts. The holes should be drill at the shallow angle required to align with the lower rigging hole in the fuselage forward side panels.



Lower wings



Upper wing

Landing gear bracing wires:

NOTE: ***First assemble the landing gear (Refer to Part 13 - Construction continued).***

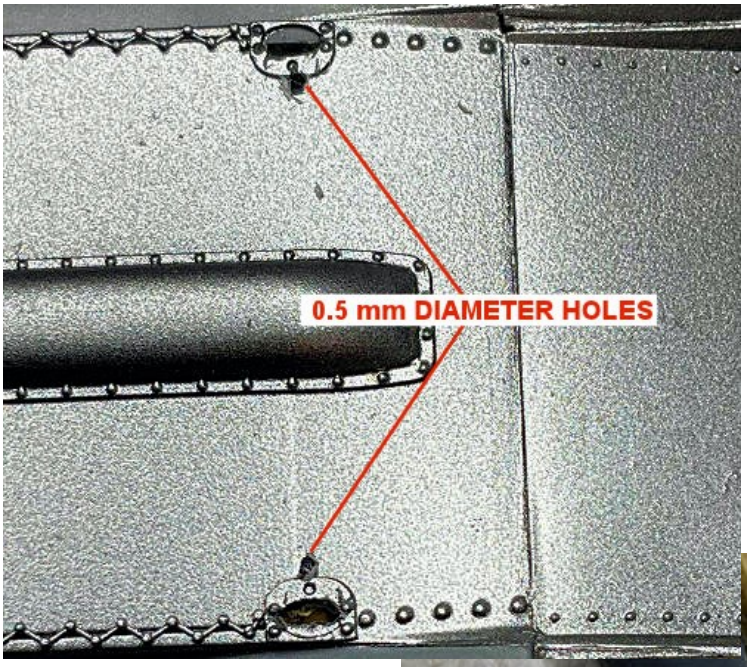
Primary cross bracing wires:

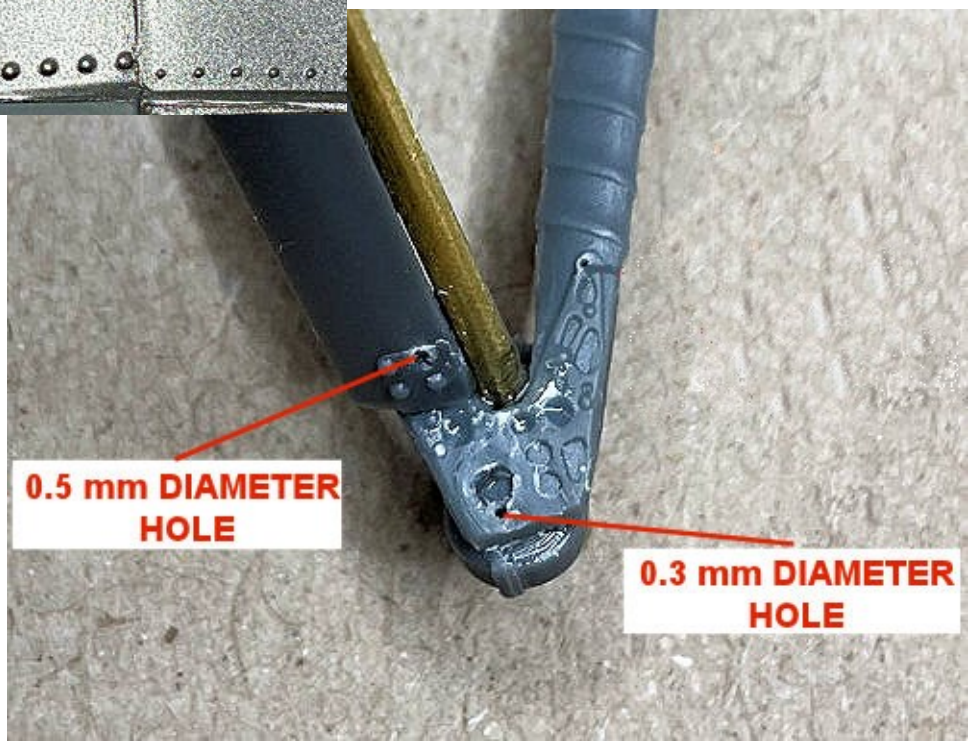
NOTE: *The primary cross bracing wires are attached between the underside of the fuselage and the bottom on the landing gear struts. The wires have to pass through the axle fairing.*

Drill a hole of 0.5 mm diameter through the each side of the axle fairing, using the pre-moulded recesses in the fairing. The holes should be drill at the shallow angle required to align the top of the landing gear rear struts and the bottom of the struts, just below the round recess (used to locate the 'bungee' suspension unit).

Drill holes of 0.5 mm diameter into the underside of the fuselage, inboard from the locating recesses for the landing gear rear struts. The holes should be drill at the angle required to align with the holes drilled through the axle fairing.

Drill holes of 0.3 mm diameter into, **but not through**, the bottom of the struts, just below the round recess (used to locate the 'bungee' suspension unit). These holes will be used for rigging Anchor Points later in this build.





Secondary cross bracing wires:

NOTE: *The secondary cross bracing wires are attached crossed between the landing gear struts and above the axle.*

Drill a hole of 0.2 mm diameter through the each of the small lugs on the bottom of the landing gear rear struts.

Drill a hole of 0.5 mm diameter through the bottom of the front struts of the landing gear at the top of the pre-moulded bracket.

PART 13
FIGURES

PART 13 - FIGURES

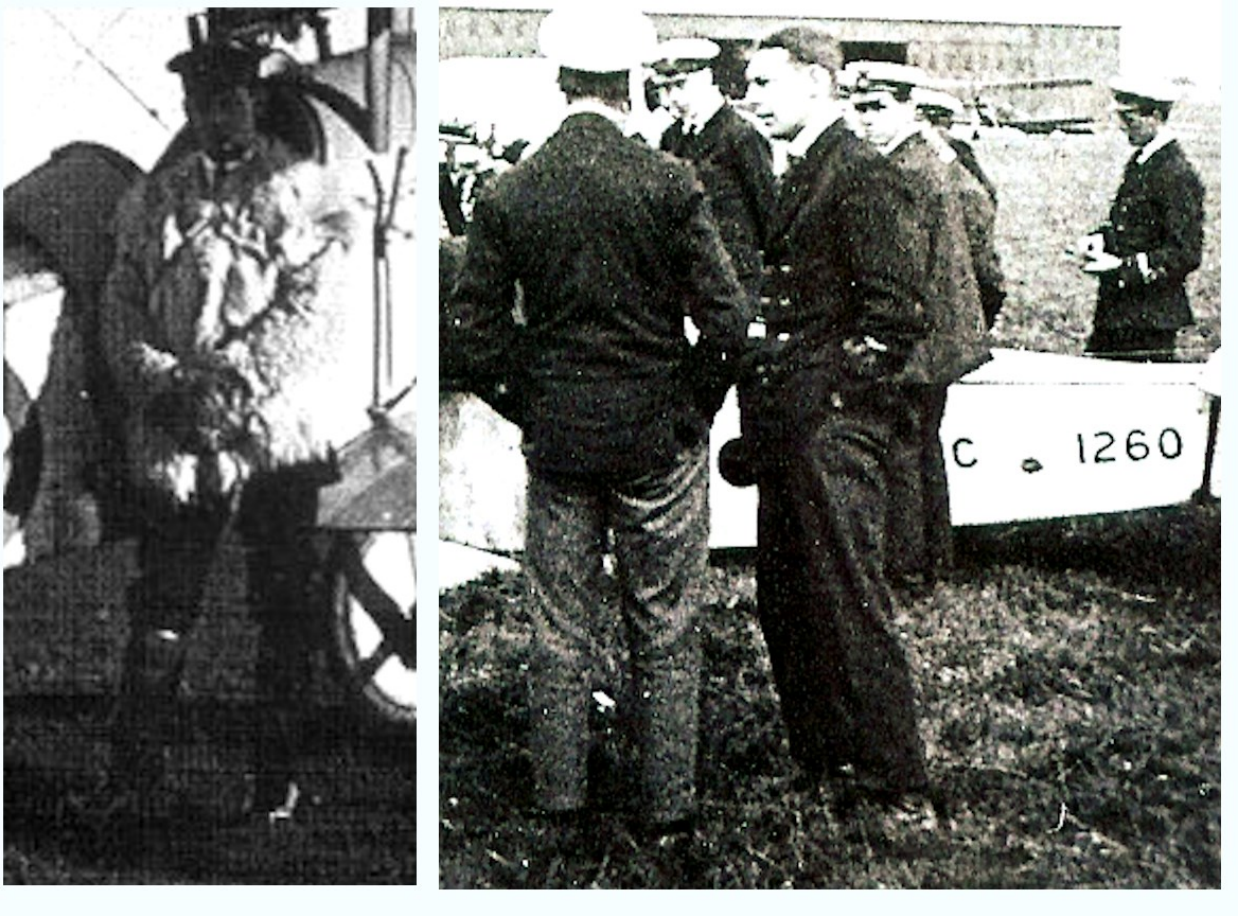
NOTE: *The figures I chose to use for this model are the 'Copper State Models' RNAS pilot in fur coat (F32-051) and the RNAS mechanic with can (F32-054).*

Refer to Part 5 (Resin) for more information when working with resin parts.

The pilot figure is supplied as a complete body and separate head.

The mechanic figure is supplied as the body, two arms, head and petrol can.

Pilot:



Preparation:

Cut away the casting blocks from the figures and their parts.

Sand and the bottom of the feet on both figures and any other residual casting block material.

Check the figures for any resin flash or seams. If found, remove by either sanding or scraping.

Check that the figure arms, heads etc locate fully into their respective locations on the figures and if necessary, adjust the parts to achieve this.

Drill a hole of 0.8mm diameter up into a leg of the figure, making sure the hole is drilled centrally up into the leg (to avoid the drill breaking through the side of the leg). This will be used to hold the figure for painting and to mount the final figure in the display base.

Cut a length of 0.8mm diameter Brass rod, such as that from 'Albion Alloy's' or similar.

Using thin CA adhesive, secure the rod into the pre-drilled holes in the leg. This will be used to both hold the figure whilst painting and to mount the figure into the base of the display case.

If necessary, repeat to secure the head onto the body. Otherwise just secure the head using thin CA adhesive.

Painting:

Airbrush the figure with a grey primer, such as ‘AK Interactive’ Grey (AK758) or similar.

Brush paint the figure as follows:

‘AK Interactive’ Faded White (AK3029) - Sheep skin coat, shirt/collar, top of cap.
‘Flory Models’ Grime wash - Wash over the white sheep skin coat.
‘Flory Models’ Dark Dirt wash - Lightly wash over the white sheep skin coat.
‘AK Interactive’ French Dark Sea Blue (AK3103) - Trousers, bottom edge of jacket.
‘Tamiya’ Semi-gloss Black (X18) - Boots, cap peak.
‘Tamiya’ Rubber Black (XF85) - Cap band, tie.
‘Tamiya’ Flat Earth (XF52) - Hair.
‘Mr. Colour’ Brass (219) - Cap badge.
‘Tamiya’ Red (XF7) - Crown of cap badge.

NOTE: *The following paints for flesh are water based and can be thinned as required using water, which is also used to clean the brushes. It’s easier to use a ‘wet palette’ when applying these paints as this keeps the paint from drying and allows mixing of paints as required. A basic wet palette can be a water proof plastic lid with dampened kitchen roll paper laid inside. The paints are then dripped onto the damp paper and applied from there.*

The paints used for the flesh of the figures are from the ‘Citadel’ colour range:

Base coat - ’Bugmans Glow’.
Shading - ‘Reikland Flesh Shade’.
Flesh tone - ‘Cadian Flesh Tone’.
Flesh highlights - ‘Kislev Flesh’.

Brush ‘Bugmans Glow’ over the exposed head and hands of the figure and allow to dry.

Brush thinned ‘Reikland Flesh Shade’ over the painted head and hands of the figure and allow to dry.

Brush thinned ‘Cadian Flesh Tone’ over the painted head and hands of the figure and allow to dry. Do not apply the paint such that it completely covers the previous coat, as subtle shadows are necessary around such as the ears, eyes, nose and chin etc.

Brush thinned ‘Kislev Flesh’ over the painted head and hands of the figure and allow to dry. This application is very light and intended to highlight areas such as the eye brows, ears, bridge of the nose and jaw line etc.

Using a sharp point, apply ‘Tamiya’ Rubber Black (XF85) or similar to create the eye pupils.

Assembly:

Using thin CA adhesive, secure the head into its pre-drilled hole in the body.

Weathering:

Refer to Part 3 (Weathering) of this build log - Apply ‘Flory Models’ Dark Dirt fine clay wash over the boots and trousers then remove as desired.

Sponge lightly ‘Tamiya’ Weather Master Set A (Mud) as desired, to represent dirt on the boots.

Mechanic:

NOTE: *The Royal Naval Air Service merged with the Royal Flying Corps on the 1st of April 1918 to form a new service, the Royal Air Force. This illustration depicts a Petty Officer wearing khaki, with puttees (the bandage-style strapping around his legs). To the unpractised eye his uniform appears to be army. However, the Royal Navy servicemen served not only on ships, but at air bases with permanent buildings and at bases with temporary accommodation, including tents. When serving overseas, these naval personnel wore khaki uniforms.*

Preparation:

Drill a hole of 0.8mm diameter up into a leg of the figure, making sure the hole is drilled centrally up into the leg (to avoid the drill breaking through the side of the leg). This will be used to hold the figure for painting.

Cut a length of 0.8mm diameter Brass rod, such as that from ’Albion Alloy’s’ or similar.

Using thin CA adhesive, secure the rod into the pre-drilled holes in the leg. This will be used to both hold the figure whilst painting and to mount the figure into the base of the display case.

NOTE: *I found the neck to be a little too long, so reduced its height.*

If necessary, repeat to secure the head onto the body, but using 0.5 mm diameter rod or similar.

Using thin CA adhesive, secure the two arms fully into their locations in the body.

Drill a hole of 0.5 mm diameter into the centre of the left arm and into wrist of the left hand/petrol container.

Cut a length of 0.5mm diameter Brass rod, such as that from ’Albion Alloy’s’ or similar.

Using thin CA adhesive, secure the rod into the pre-drilled holes in the left arm.

Trim the length of that rod such that the left hand/petrol container can be fully located onto the arm.

Test fit the left hand/petrol container onto the arm and if necessary, bend the rod such that the petrol container rests correctly in the right hand.

Remove the left hand/petrol container and the head from the figure. These will be final fitted after being painted.

Painting:

Airbrush the figure with a grey primer, such as ‘AK Interactive’ Grey (AK758) or similar.

Brush paint the figure as follows:

‘AK Interactive’ Faded White (AK3029) - Top of cap.

‘AK Interactive’ British Uniform (AK3081) - Trousers, puttees.

‘AK Interactive’ British Uniform Light (AK3082) - Highlights to trousers and puttees.

‘Tamiya’ Semi-gloss Black (X18) - Cap peak.

‘Tamiya’ Rubber Black (XF85) - Cap band.

‘Tamiya’ Flat Brown (XF10) - Shoes.

‘Tamiya’ Flat Earth (XF52) - Hair.

‘AK Interactive’ German Uniform Light (AK3092) - Jacket.

‘AK Interactive’ Black Uniform Base (AK3002) - Shadows on jacket.

‘Mr. Colour’ Stainless Steel (213) - Fuel can, jacket buttons.

‘Mr. Colour’ Brass (219) - Cap badge.

‘Tamiya’ Red (XF7) - Crown of cap badge.

NOTE: *The following paints for flesh are water based and can be thinned as required using water, which is also used to clean the brushes. It's easier to use a 'wet palette' when applying these paints as this keeps the paint from drying and allows mixing of paints as required. A basic wet palette can be a water proof plastic lid with dampened kitchen roll paper laid inside. The paints are then dripped onto the damp paper and applied from there.*

The paints used for the flesh of the figures are from the 'Citadel' colour range:

Base coat - 'Bugmans Glow'.

Shading - 'Reikland Flesh Shade'.

Flesh tone - 'Cadian Flesh Tone'.

Flesh highlights - 'Kislev Flesh'.

Brush 'Bugmans Glow' over the exposed head and hands of the figure and allow to dry.

Brush thinned 'Reikland Flesh Shade' over the painted head and hands of the figure and allow to dry.

Brush thinned 'Cadian Flesh Tone' over the painted head and hands of the figure and allow to dry. Do not apply the paint such that it completely covers the previous coat, as subtle shadows are necessary around such as the ears, eyes, nose and chin etc.

Brush thinned 'Kislev Flesh' over the painted head and hands of the figure and allow to dry. This application is very light and intended to highlight areas such as the eye brows, ears, bridge of the nose and jaw line etc.

Using a sharp point, apply 'Tamiya' Rubber Black (XF85) or similar to create the eye pupils.

Assembly:

Using thin CA adhesive, secure the head into its pre-drilled hole in the body.

Locate the left hand/fuel can, into its pre-drilled hole in the left arm and position the can correctly between the two hands.

Using thin CA adhesive, secure the left hand into the left arm.

Remove the rod from the leg as the figure will be mounted on the top of the trestle.

Weathering:

Refer to Part 3 (Weathering) of this build log:

Apply 'Flory Models' Dark Dirt fine clay wash over the jacket then remove as desired.

Refer to Part 3 (Weathering) of this build log:

Apply 'Flory Models' Grime fine clay wash over the trousers and puttees then remove as desired.

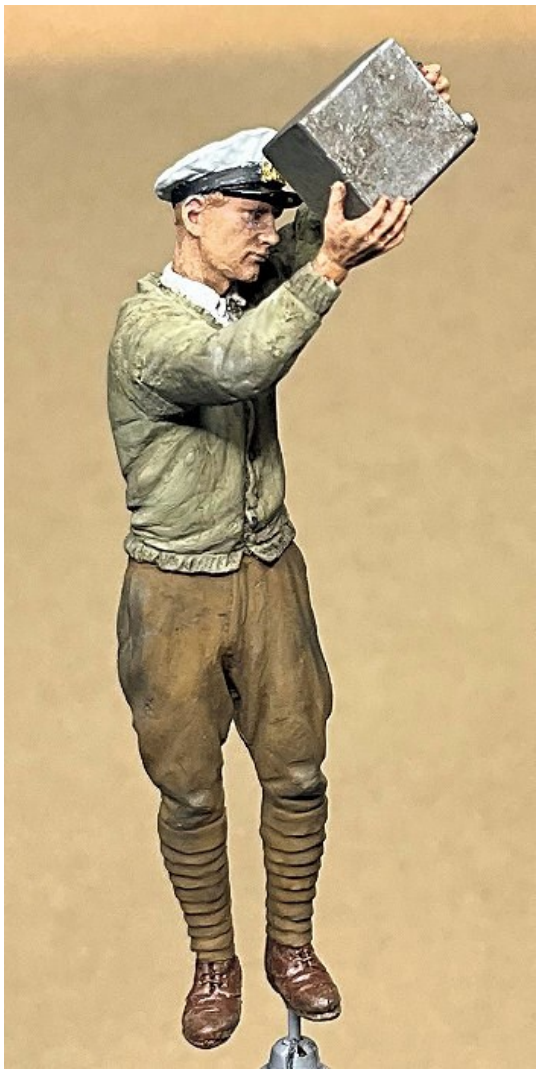
Sponge lightly on the figure to represent dirt and oil stains:

'Tamiya' Weather Master Set D (Oil Stain):

Oil stain on trousers, pockets, jacket elbows as desired.

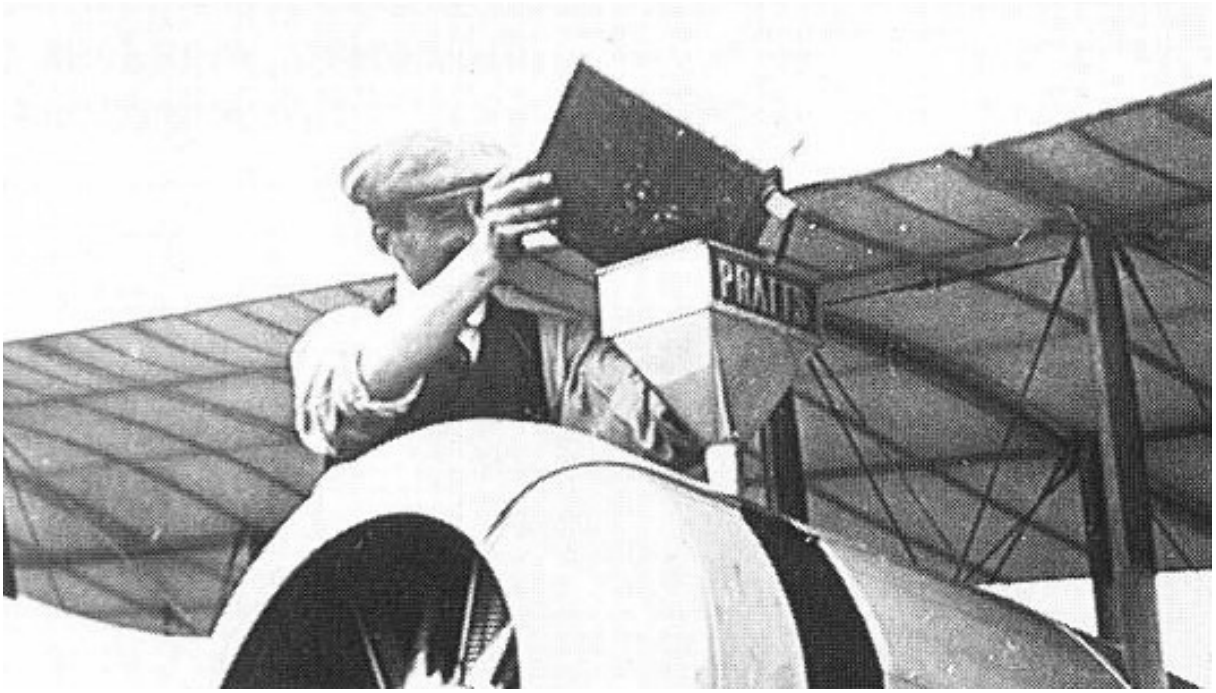
'Tamiya' Weather Master Set A (Mud):

Dirt on boots as desired.



Accessories:

NOTE: *The following photograph shows the fuel tank of an early Bristol Scout being refilled from a fuel container. As the mechanic figure has been moulded to represent fuel being poured into the fuel tank through a funnel, which is not available in the kit.*



To represent a fuel funnel I cut four pieces for the funnel from 0.3 mm thick plastic card. These were cemented together after which the edges were sanded to blend them together. The filler tube was cut from spare sprue and secured in position on the bottom of the funnel, using thin CA adhesive.

The funnel assembly was airbrushed with ‘AK Interactive’ Grey (AK758) primer, then brush painted with ‘Mr. Colour’ Stainless Steel (213). Once dry the paint was buffed to a metal sheen, using a cotton bud. Two decals labels from my ‘spares’ box were applied to the funnel sides and ‘Tamiya’ Clear Yellow (X24) was brushed inside the funnel to represent fuel.

Trestle:

NOTE: *The trestle was not a kit supplied part and was taken from my ‘spares’ box.*

Airbrush the trestle with a grey primer, such as ‘AK Interactive’ Grey (AK758) or similar.

Airbrush the trestle with ‘Tamiya’ Dark Yellow (XF60) or similar.

NOTE: *The wood effect for this model was created using ‘Windsor & Newton’ Griffin (Alkyd) Raw Sienna paint. Refer to Part 2 (Wood Effects) of this build log for more information.*

Brush a covering coat of the ‘Windsor & Newton’ Griffin Alkyd **Vandyke Brown** paint over the wood parts.

Leave the oil paint to settle for several minutes.

Decant a small amount of White Spirits into a suitable dish.

Dip a flat oil brush into the White Spirit then wipe the brush on a sheet of kitchen roll (which should not deposit any fibres in the oil paint) to remove most of the White Spirit.

Brush the oil paint in the required direction and keep wiping the brush on the sheet to remove residual oil paint.

Repeat dipping and wiping the brush in the White Spirits and brushing the oil paint until the desired density and effect is achieved.

Leave the oil paint to fully dry. It should be touch dry in an hour or so and fully dry within 12 hours.

PART 14
CONSTRUCTION
CONTINUED

PART 14 - CONSTRUCTION CONTINUED

NOTE:

When cementing large kit parts, I use 'Revell' Contacta Professional cement (39604). This is a thicker liquid cement, which takes longer to fully set, but does provide a stronger bond between larger kit parts. 'Tamiya' liquid cement is used for smaller parts.

Before working with model parts, make sure that when removed from their sprues, all mould seams, sprue tags or mould 'flash' are removed from each part.

Refer to the relevant pages in the kit instruction manual.

My sequence of building this model may sometimes seem disjointed, but this is mainly due to incorporating modifications as I progress through the build.

Preparation:

NOTE: *Steps in the kit instruction manual not required for this particular build of Scout 1260 are Steps 51, 52 and 62.*

Modifications:

Ailerons:

NOTE: *The following steps are to have the ailerons in the upper and lower wings positioned in opposition, as they would have been on the actual aircraft. If not desired, attach the ailerons aligned to the wings, as shown in the kit instructions.*

Refer to the following photograph and point mark the centre of the two aileron outer hinge recesses for the lower wing, right aileron.

Using the point marks as guides, drill holes of 0.5 mm diameter into the wing, making sure the holes are drilled parallel with the wing (to avoid drill 'break through').

Cut two short lengths of 0.5 mm diameter Brass rod, such as that from 'Albion Alloy's or similar.

Secure the rods into the pre-drilled holes in the wing, using thin CA adhesive.

Cut away the pre-moulded 'pegs' in the leading edge of the appropriate aileron (refer to the instruction manual).

Point mark the centre of the removed peg 'witness' marks.

Using the point marks as guides, drill holes of 0.5 mm diameter into the aileron, making sure the holes are drilled parallel with the aileron (to avoid drill 'break through').

Test fit the aileron onto the fitted locating rods, making sure the ledge along the aileron leading edge locates over the ledge on the wing (as viewed from the top surface of the wing).

Once fully located on the wing, bend the aileron either up or down and at a slight angle.

Repeat the procedure to fit and angle the right aileron on the upper wing.

Repeat the procedure to fit the left ailerons to the upper and lower wings, making sure the angle the ailerons are bent to are the same and opposite to the ailerons on the right side of the wings.

Remove the ailerons from the wings, for fitting later in this build.

Fuselage cabane strut A19:

Sand away the strap around the fuselage left, rear cabane strut. This was for mounting the gun sight for a Lewis machine gun on the left side of the fuselage. Not required for this particular model.

Wheel outer covers:

NOTE: *The outer covers (A7) for the wheels of the landing gear are moulded to represent the wheel spokes under the covers. However, the definition of the moulding is too pronounced and should be reduced.*

To better represent the spoke detail on both outer wheel covers, lightly sand or scrape the moulded spoke detail to reduce their prominence and soften their appearance.

Landing gear:

NOTE: *I felt the kit supplied axle seemed too weal and flexible, so chose to replace it with brass tube. Also for this particular aircraft, a fairing was fitted across the rear of the landing gear axle. The fairing is kit suppled part B16.*

Cut a 49 mm length of 1.2 mm diameter Brass tube, such as ‘Albion Alloy’s’ MBT12 or similar.

Trim the length of the tube to match the length of the kit supplied axle B10.

Cut away the ‘bungee’ cord suspension units from the ends of the axle.

Point mark the centre of the ‘witness’ marks left by the removed axle.

Using the point marks as guides, drill holes of 1.2 mm diameter through the suspension units, making sure the holes are drilled vertically.

Locate the suspension units onto the outside of the landing gear struts A22 and A23) with the pre-moulded locating peg on the units. Make sure the drilled holes are central between the ‘V’ at the bottom of the struts.

Pass the Brass tube through the holes in suspension units the insert the ends of the struts into their locating recesses in the underside of the fuselage.

Slide the struts along the Brass tube to achieve the correct spread and angle for the struts.

Locate the axle fairing B16 into its recesses on the inside of th landing gear struts.

Cement the axle fairing to the landing gear struts.

Once the cemented parts have fully set, remove the landing gear assembly from the fuselage.

Slide the Brass tube through the struts to leave the same amount of tube exposed from the outside of the landing gear struts.

Secure the Brass tube to the suspension units, using thin CA adhesive.

Fuel tank filler cap:

NOTE: *The mechanic figure has been moulded to represent fuel being poured into the fuel tank through a funnel, which will be created as its not available in the kit. As such the pre-moulded fuel filler cap on the top, front of the fuselage needs to be modified.*

Carefully cut away the fuel filler cap from the top, front of the fuselage.

Brush paint the filler cap with ‘Mr. Colour’ Brass (219) or similar

Using the witness mark left on the fuselage as a guide, drill a hole of 1.2 mm diameter through the fuselage to create the fuel filler access hole.

Using thin CA adhesive, secure a short length of 0.2 mm diameter lead wire (such as that from ‘PlusModel’ or similar.

Using thin CA adhesive, secure one end of the wire into the right side of the pre-drilled hole.

Using thin CA adhesive, secure the fuel cap onto the other end of the wire and onto the top of the fuselage.

Brush paint the fuel cap with ‘Mr. Colour’ Brass (219) or similar.

Assembly (continued):

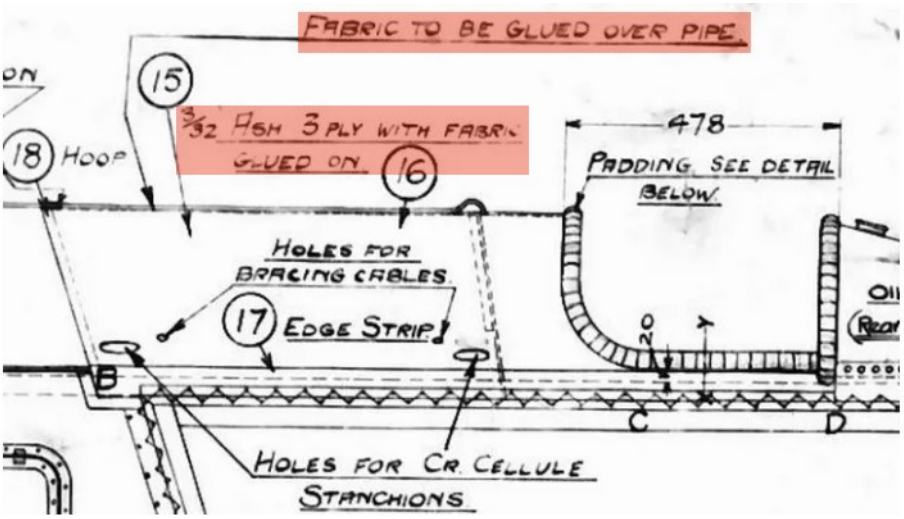
Cement the kit supplied fuel gauge breather pipe (C1) into its locating holes on the fuselage decking panel.

Painting:

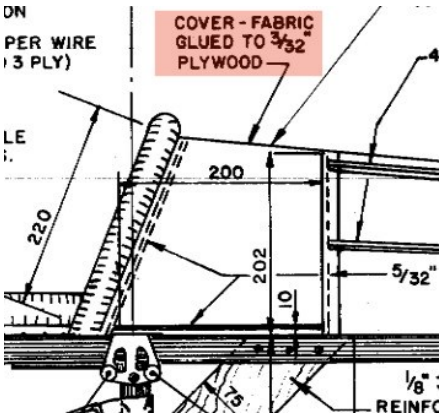
NOTE: *A light coloured primer, such as white, is required for applying the 'Aviattic' Clear Doped Linen (CDL) bleached (ATT32044) decal. These decals are translucent and need a light base coat to better show the effects.*

The forward and rear decking panels were linen covered 3-ply Ash wood. Therefore the panels should be painted and have decal as for the rest of the aircraft. In addition, the kit supplied fuel gauge breather pipe (C1) should be fitted as it was also covered in linen.

Scout C



Scout D



The following parts require priming:

- *Fuselage/lower wing assembly*
- *Upper wing*
- *Four ailerons*
- *Rudder*
- *Tailplane/elevator*
- *Wheel covers.*

Mask off the open cockpit, the fuselage metal panels and the engine cowl.

Temporarily fill the two openings (for the elevator control cables) in the underside of the fuselage.

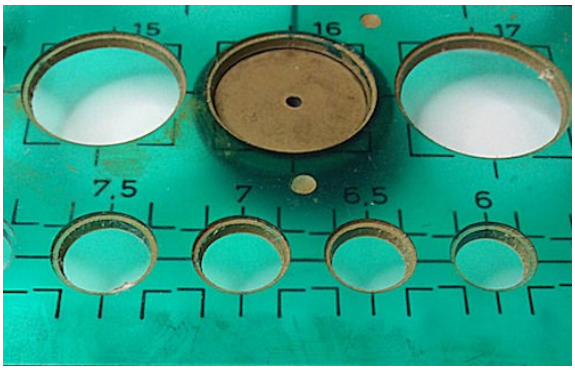
Prime the previously listed parts (except the wheels) with a white primer, such as 'AK Interactive' White (AK-759) or similar.

Airbrush a gloss clear coat, such as 'Alclad' Aqua Gloss 600 or similar, over the primed parts.

NOTE: *To airbrush the rear cover on the two wheels, without over spraying the surrounding tyres, I use a circle drawing tool (Linex 1217 T).*

Select the best sized hole in the drawing tool that matches the covers (not including tyres) of the wheels. Position the wheel under the hole.

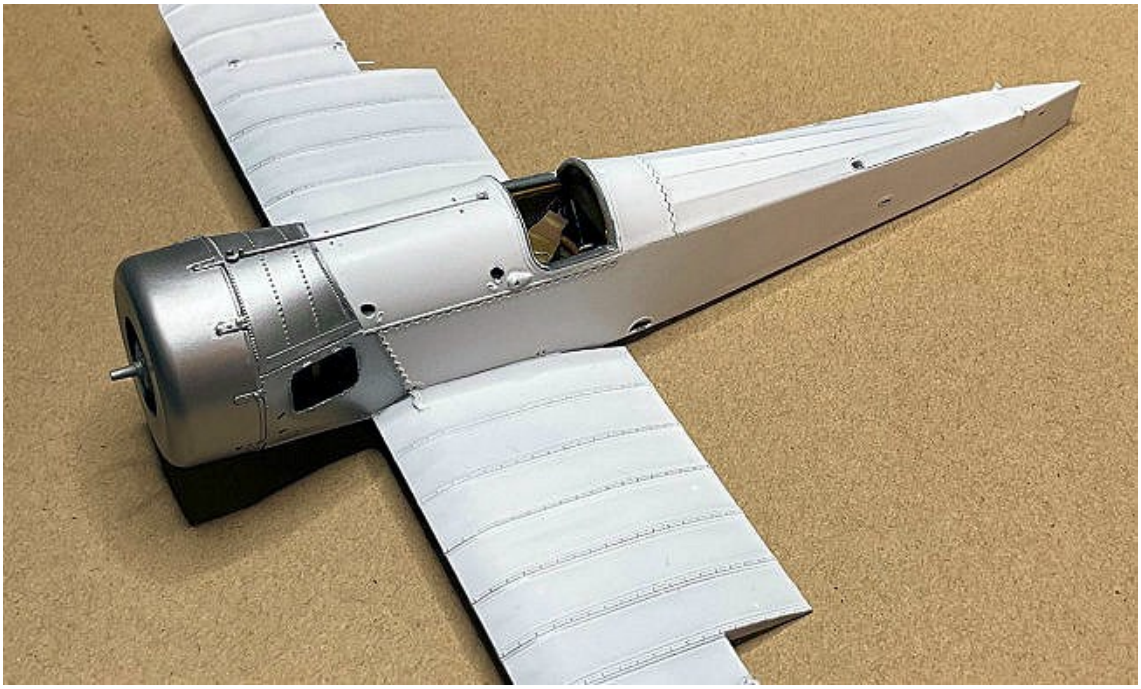
Example of using the drawing tool



Prime the wheel cover by airbrushing with a white primer, such as ‘AK Interactive’ White (AK759) or similar.

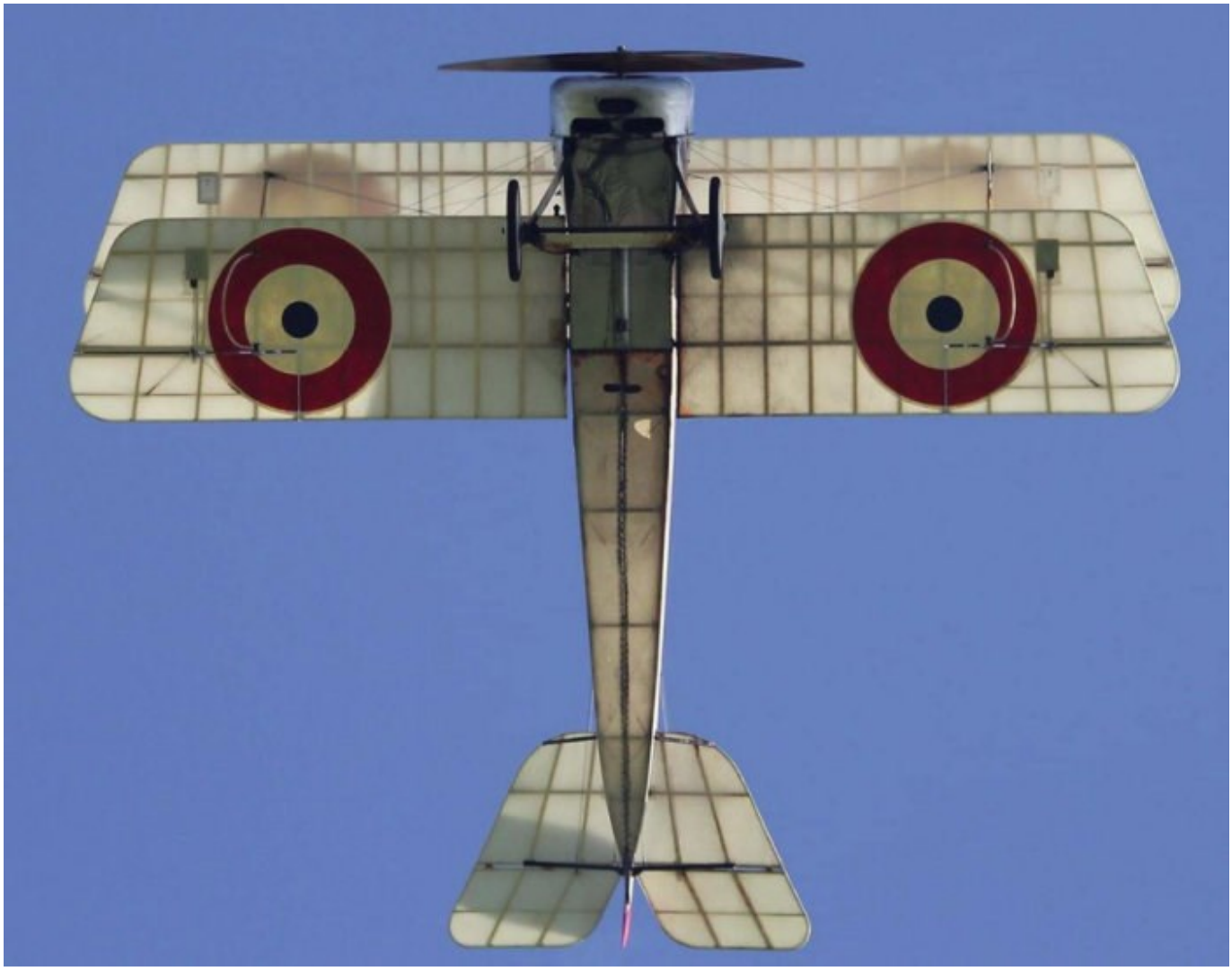
Make sure all surfaces are smooth and free from surfaces imperfections. If necessary, sand and re-prime.

Airbrush a gloss clear coat, such as ‘Alclad’ Aqua Gloss 600 or similar, over the wheels and outer covers.



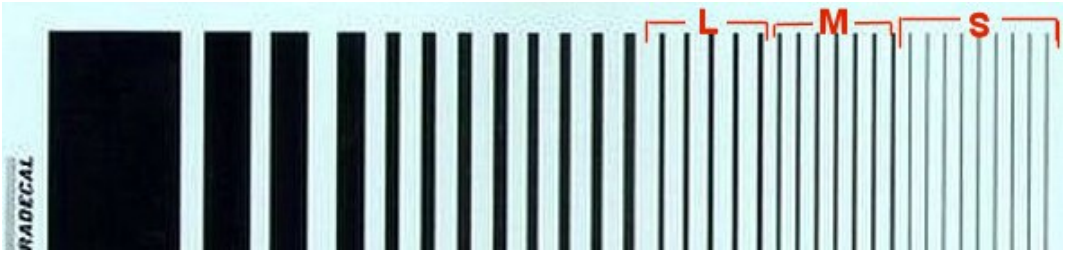
Pre-shading underside surfaces:

NOTE: *Pre-shading under the applied linen decals is intended to show the 'ghost' outline of the internal structure and wires through the linen decals and* ***is more obvious from the undersides*** *of the wings, tailplane/elevator and the fuselage.*
This is because the light penetration through the linen covering of the aircraft will be from above when the aircraft is on the ground. Therefore internal structure will be more from the undersides. Light reflected from the top surfaces will mask internal structure from the top surfaces and the internal structure is much less visible.
As can be seen on the following photographs, the most prominent visible structures from the undersides are the spars, tubes and ribs. The crossed bracing wires in the wings are visible, but less so as they are effectively central, between the top and underside surfaces of the wings. The crossed bracing wires in the fuselage are more visible as they are closer the fuselage sides. The exception are those under the top of the fuselage, as they are located lower down between the frames.




1264

To create the basic pre-shading for the internal structures I used three different width decal stripes from the 'Xtradecal' parallel stripes black (XPS1) set. For reference, the three decal stripes used are marked L (large), M (medium) and S (small.



<u>Upper wing/ailerons underside:</u>

The upper wing internal structure consists of:

Front and rear main spars (across the wing)

Intermediate spar (between main spars)

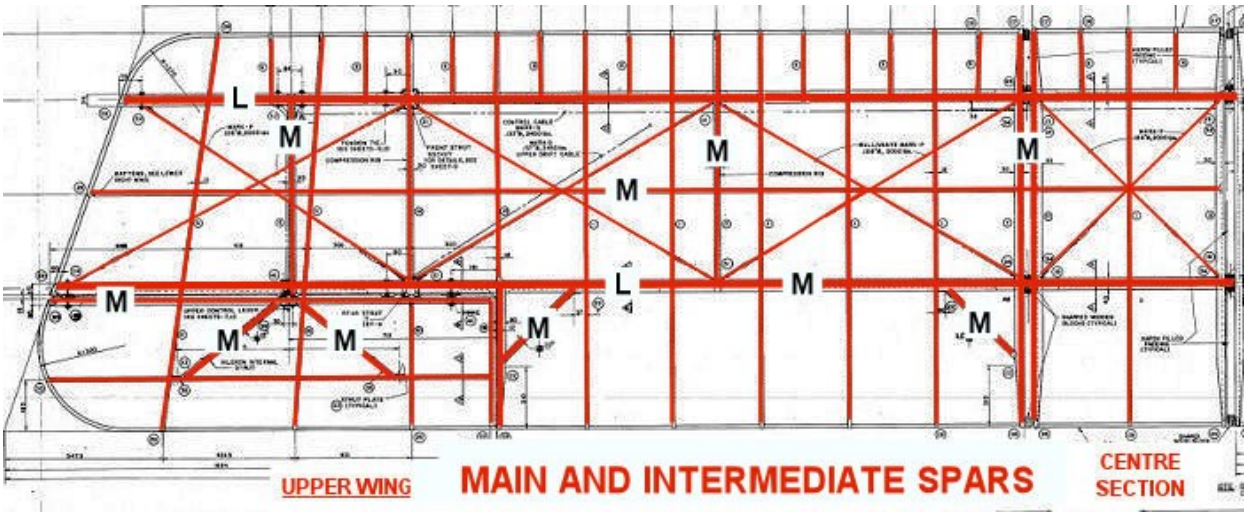
Wing ribs (front to rear of the wing)

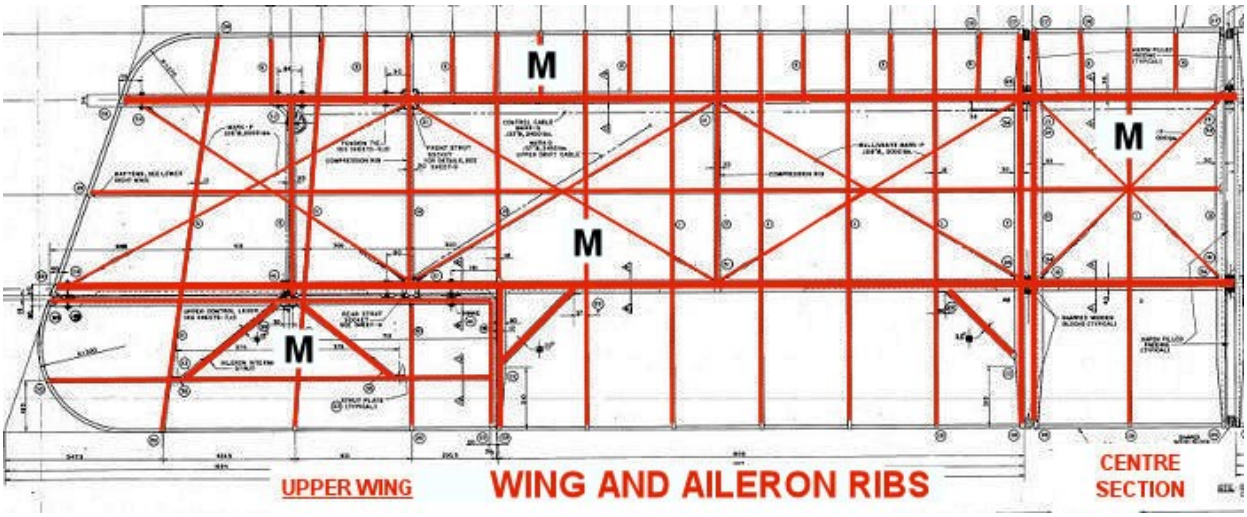
Crossed bracing wires (between main spars)

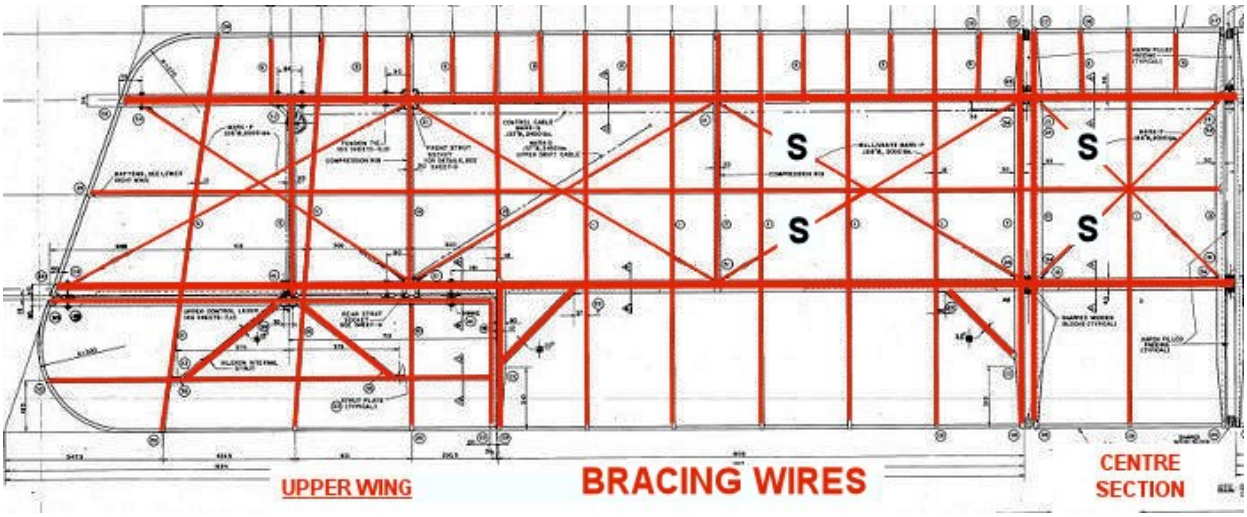
Angled bracing spars (ailerons and wing trailing edge).

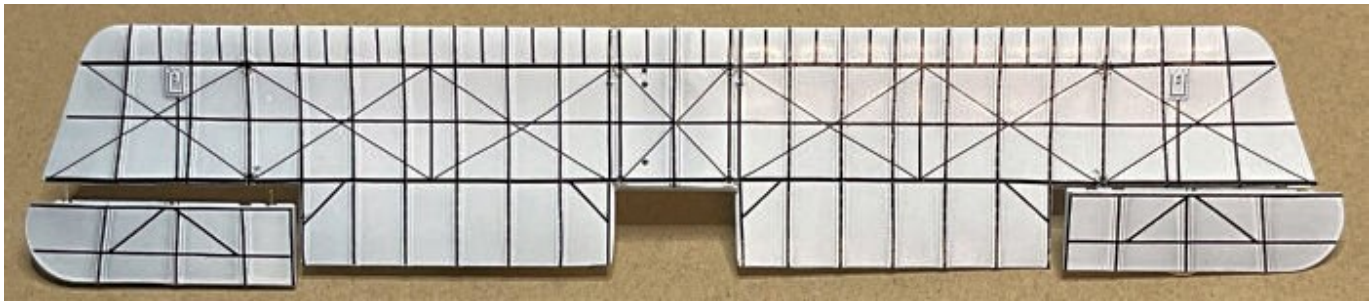
<u>NOTE:</u> *Refer to the previous 'Xtradecal' illustration for which decal stripes are used.*

Refer to the following illustration (L, M and S) and apply the relevant thickness 'Xtradecal black decal stripes to be applied to the underside of the upper wing and ailerons.









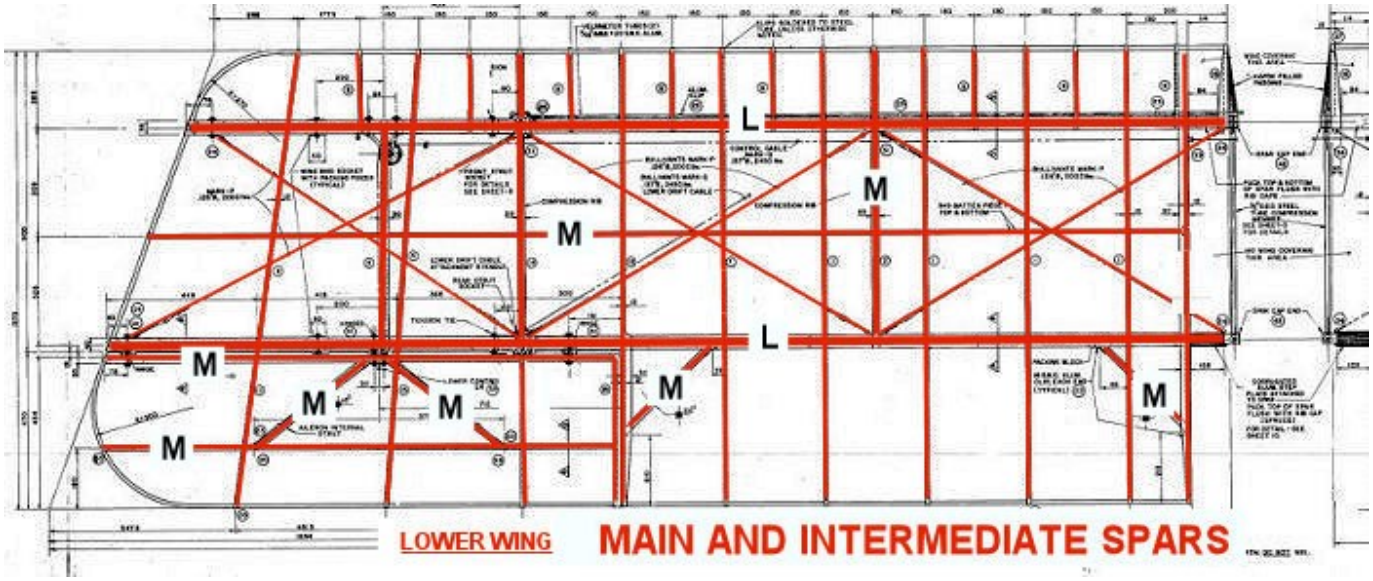
Lower wings/ailerons undersides:

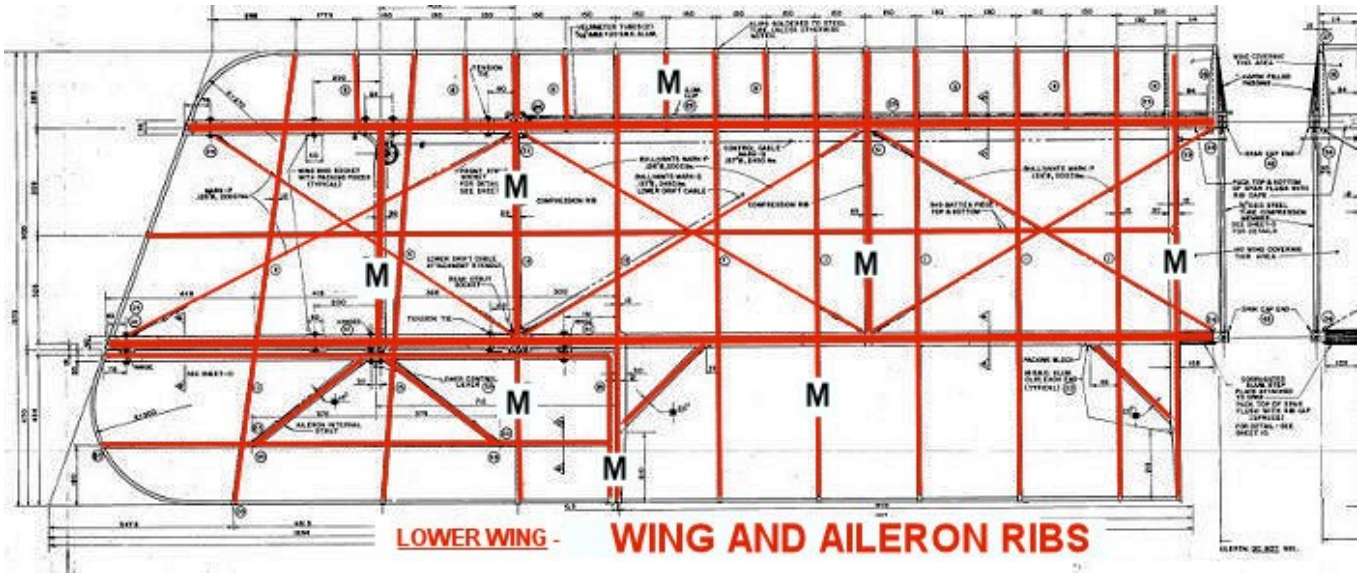
The lower wings internal structure consists of:

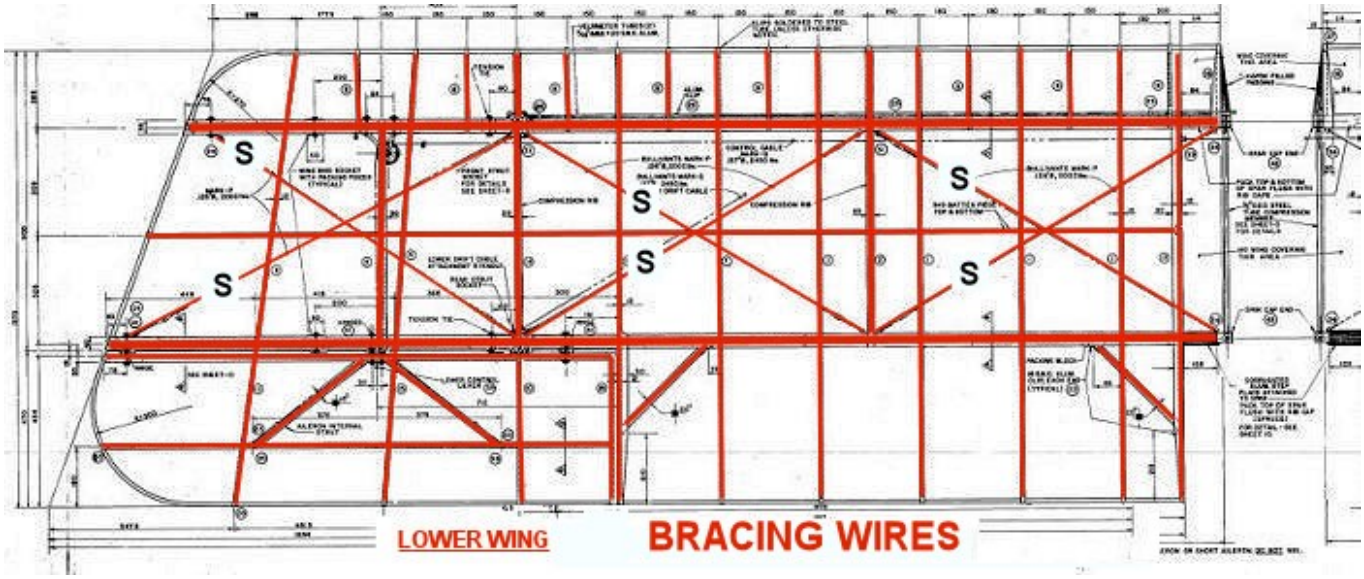
- Front and rear main spars (across the wing)
- Intermediate spar (between main spars)
- Wing ribs (front to rear of the wing)
- Crossed bracing wires (between main spars)
- Angled bracing spars (ailerons and wing trailing edge).

NOTE: *Refer to the previous 'Xtradecal' illustration for which decal stripes are used*

Refer to the following illustration (L, M and S) and apply the relevant thickness 'Xtradecal black decal stripes to be applied to the underside of the lower wings and ailerons.







Fuselage underside:

The underside of the fuselage internal structure consists of:

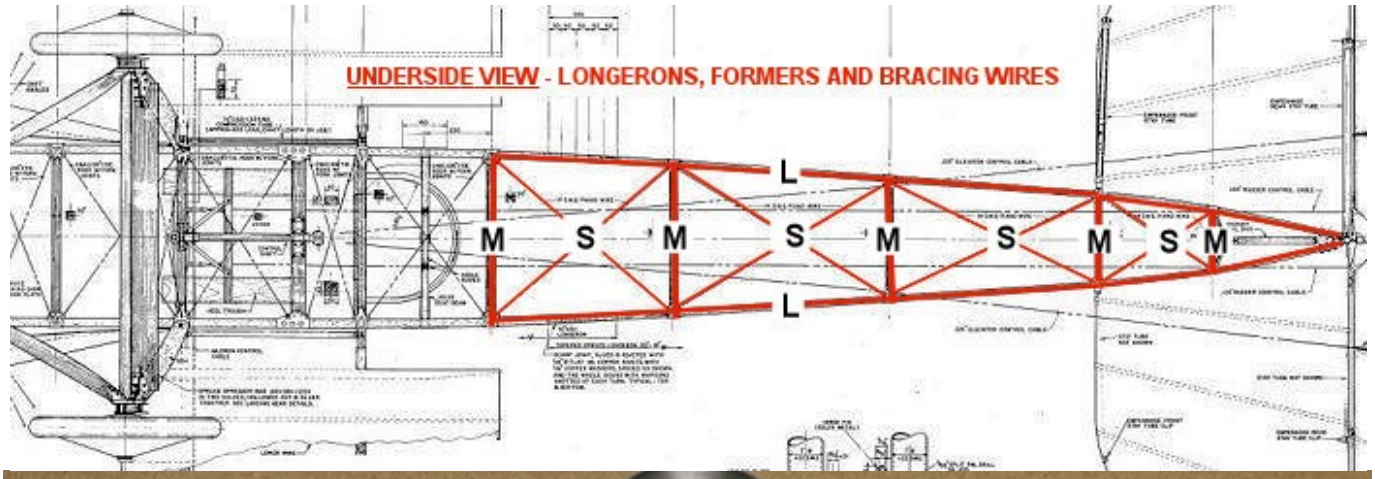
Longerons (along the sides)

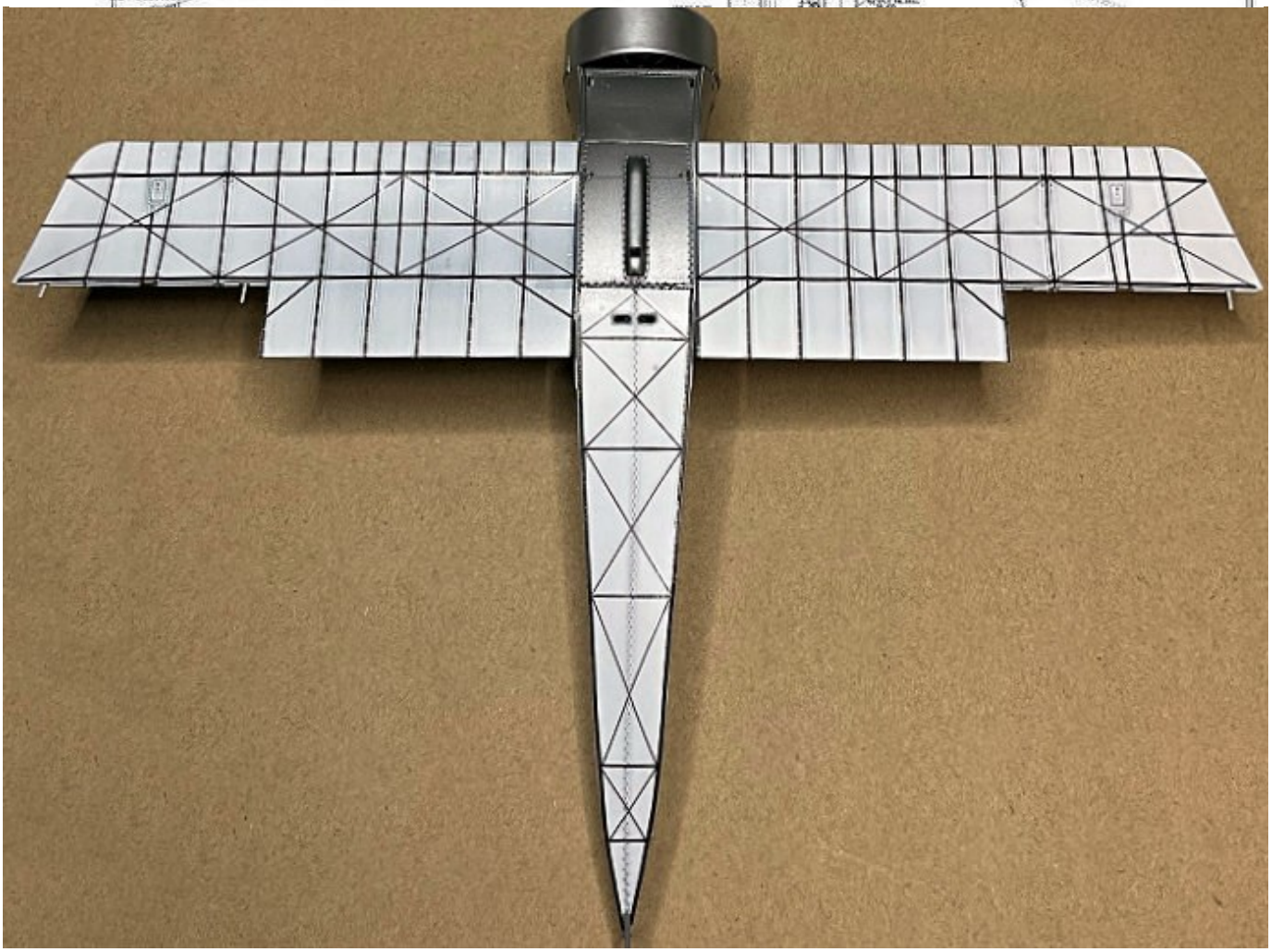
Frames (across fuselage)

Crossed bracing wires (between longerons and frames).

NOTE: *Refer to the previous 'Xtradecal' illustration for which decal stripes are used*

Refer to the following illustration (L, M and S) and apply the relevant thickness 'Xtradecal black decal stripes to be applied to the underside of the upper wing and ailerons.





Tailplane/elevator undersides:

The tailplane and elevator internal structure consists of:

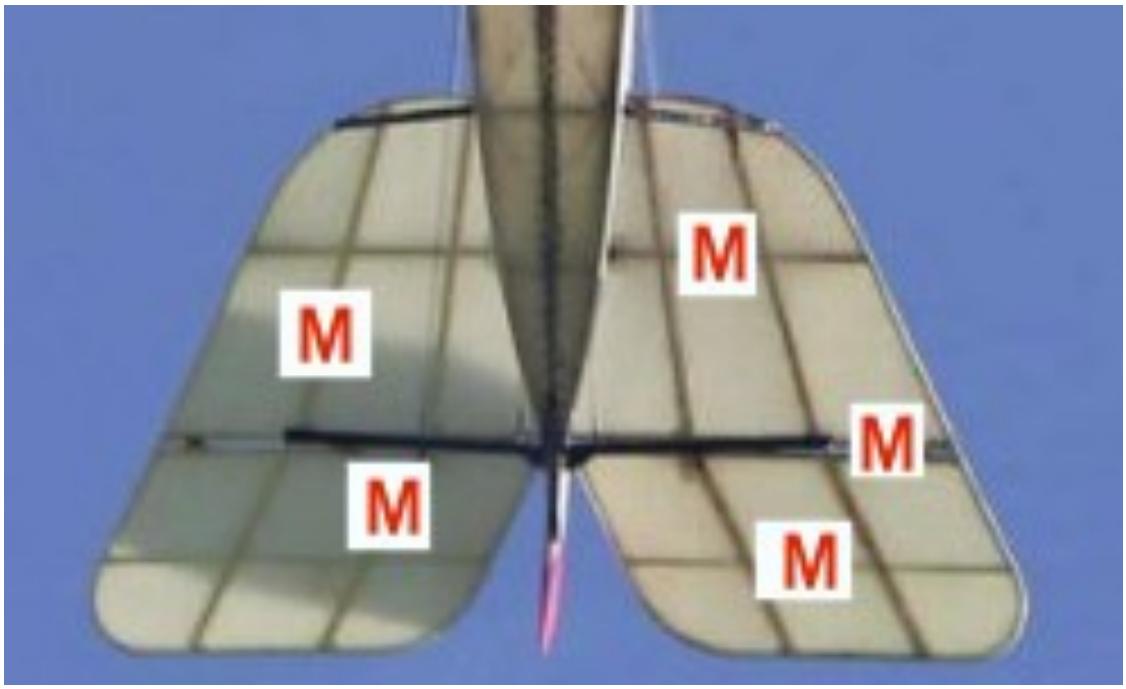
Ribs (front to rear)

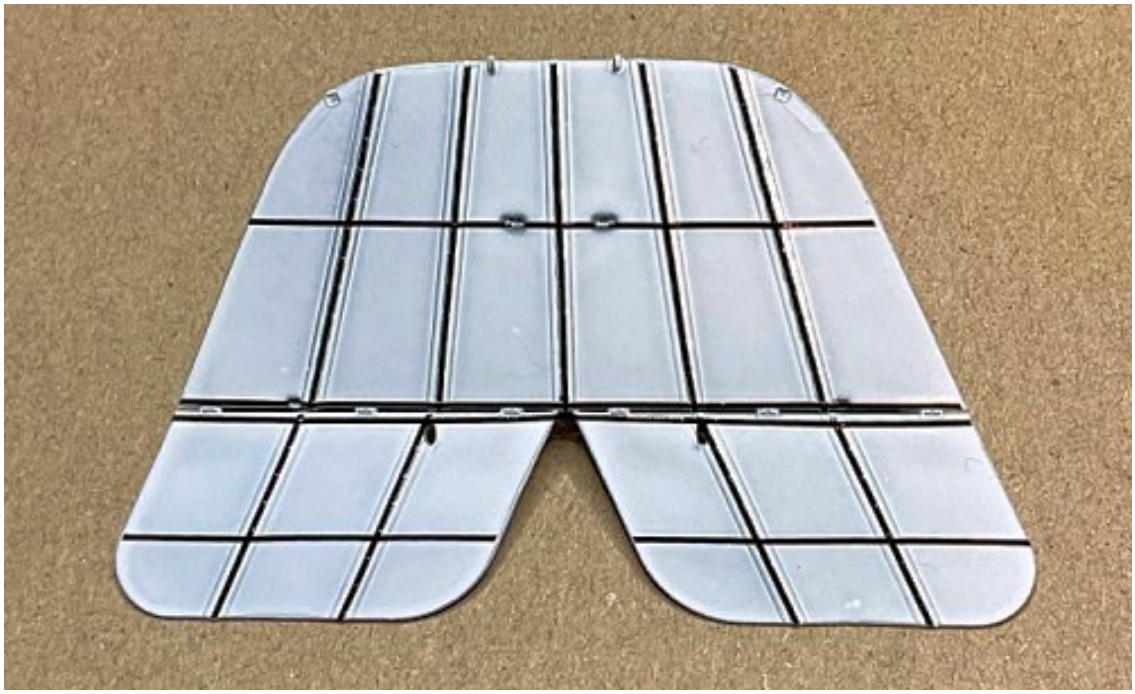
Spar (across tailplane)

Tubes (across tailplane and elevator).

NOTE: *Refer to the previous 'Xtradecal' illustration for which decal stripes are used*

Refer to the following illustration (L, M and S) and apply the relevant thickness 'Xtradecal black decal stripes to be applied to the underside of the tailplane/elevator.





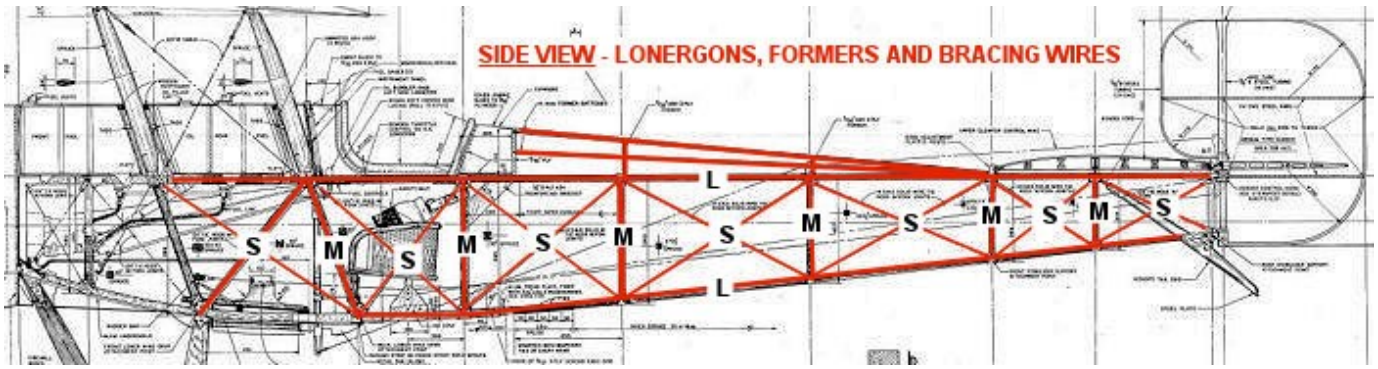
Fuselage sides:

The sides of the fuselage internal structure consists of:

Longerons (along the sides)
Frames (down fuselage sides)
Crossed bracing wires (between longerons and frames).

NOTE: *Refer to the previous 'Xtradecal' illustration for which decal stripes are used*

Refer to the following illustration (L, M and S) and apply the relevant thickness 'Xtradecal black decal stripes to be applied to the sides of the fuselage.

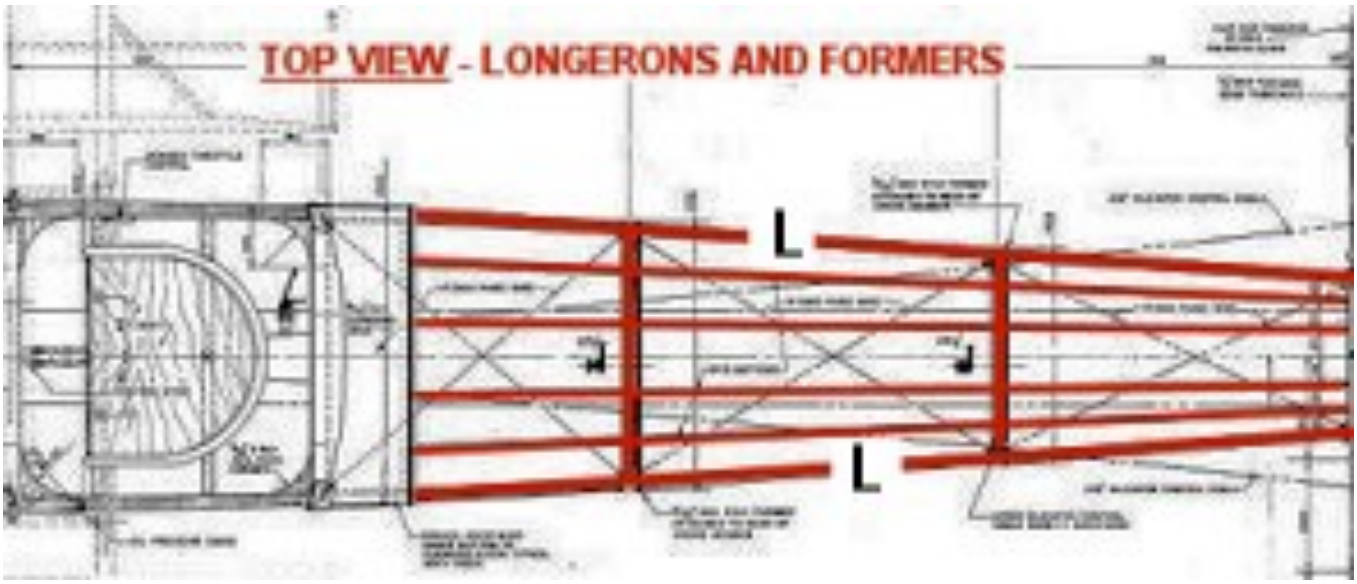


Fuselage top:

The only top of the fuselage internal structure necessary are the longerons (along the sides). When the aircraft is on the ground, the battens (between longerons), the frames (across fuselage) and the crossed bracing wires would **not be visible** through the linen covering.

NOTE: *Refer to the previous 'Xtradecal' illustration for which decal stripes are used*

Refer to the following illustration (L, M and S) and apply the relevant thickness 'Xtradecal black decal stripes to be applied to the top cover of the fuselage.



Rudder:

No internal detail is necessary for the rudder as it will be painted with the three colour stripes of blue, white and red.

Painting (continued):

Pre-shaded internal structure and wires

NOTE: *Light penetration through the linen covering of the aircraft (when the aircraft was on the ground) would be from above. Therefore the wings internal structures and wires will be more obvious from the undersides and slightly through the fuselage sides.*

Undersides of wings and fuselage:

Mask off the metal painted areas at the front of the fuselage.

Mask off the open cockpit.

Block the four holes for the fuselage cabane struts (I used shaved tooth picks).

Temporarily fit the ailerons in their locations on the upper and lower wings.

Airbrush a light coat of ‘Tamiya’ White (XF2) or similar, thinned with ‘Mr. Colour’ levelling thinners 400, over the pre-shading decals to slightly fade them into the white base coat. The intention is to blend, not totally cover’ the decals with white.

Airbrush the pre-shaded undersides of the wings and the fuselage with a several light coats of a clear gloss coat, such as ‘Alclad’ Aqua Gloss 600 or similar.

Airbrush the painted sides of the two outer wheel covers, the painted sides of the two wheels and the sides of the rudder with a several light coats of a clear gloss coat, such as ‘Alclad’ Aqua Gloss 600 or similar.

Upper wing ‘ghost’ roundels:

NOTE: *Light penetration from above through the linen covering of the upper wing would show the upper wing roundels a ‘ghosted’ on the underside of the wing. These require airbrushing on the wing underside before application of CDL decals. Masks need to be made to airbrush these ‘ghost’ roundels.*

Measure the diameter of the upper wing roundel decals (4).

NOTE: *To avoid masking from lifting the paint or decals, use standard tracing paper for masking, as that has no adhesive.*

From a sheet of tracing paper cut out two separate holes the diameter of the roundel. Make sure to leave plenty of the sheet around the holes (to prevent overspray).

Measure the diameter of the white disc of the wing roundel

From a sheet of tracing paper cut out two separate holes the diameter of the white disc. Make sure to leave plenty of the sheet around the holes (to prevent overspray).

Measure the diameter of the blue centre disc of the wing roundel

From a sheet of tracing paper cut out two separate holes the diameter of the centre blue disc. Make sure to leave plenty of the sheet around the holes (to prevent overspray).

NOTE: *Refer to page of the kit instruction manual for positioning. Hold the tracing paper masks onto the underside of the upper wing using clamps (I used rubber tipped clothes pegs).*

Position the full size roundel masks on the underside of the upper wing and its ailerons.

Airbrush a light coat of ‘Tamiya’ Red (XF7), thinned with ‘Mr. Colour’ levelling thinners 400, over the masks to create a faded red disc. The intention is not to totally cover the decals with red.

Position the white disc masks centrally on the painted red discs.

Airbrush a light coat of ‘Tamiya’ White (XF2), thinned with ‘Mr. Colour’ levelling thinners 400, over the masks to create a faded white disc. The intention is not to totally cover the decals with white.

Position the blue centre disc masks centrally on the painted white discs.

Airbrush a light coat of ‘Tamiya’ Flat Blue (XF8) mixed with 25 % Medium Blue (XF18) and thinned with ‘Mr. Colour’ levelling thinners 400, over the masks to create a faded blue centre disc. The intention is not to totally cover the decals with blue.

Airbrush over the painted roundels with a light coat of ‘Tamiya’ White (XF2), thinned with ‘Mr. Colour’ levelling thinners 400. The intention is to blend and fade the painted roundels, not to totally cover them with white.

Airbrush the underside of the upper wing with a light coat of clear gloss coat, such as ‘Alclad’ Aqua Gloss 600 or similar.

Weathering:

NOTE: *Light penetration from above, when the aircraft was on the ground, would have been reflected by the light coloured linen covering. This would have reduced the visibility of the internal structure and wires, making them barely, if at all, visible when the aircraft was on the ground.*

To accentuated the wing ribs on the upper and underside surfaces of the wings and tailplane/ elevator, very lightly sand over just the rib tapes to slightly remove the paint to reveal the stitching detail.

To accentuated the fuselage side and underside stitching, very lightly sand over just the stitching to slightly remove the paint to reveal the stitching detail.

To represent dirt staining, lightly airbrush thinned ‘Tamiya’ Smoke (X19):

Along the leading and trailing edges of the wings, tailplane, elevator and ailerons.

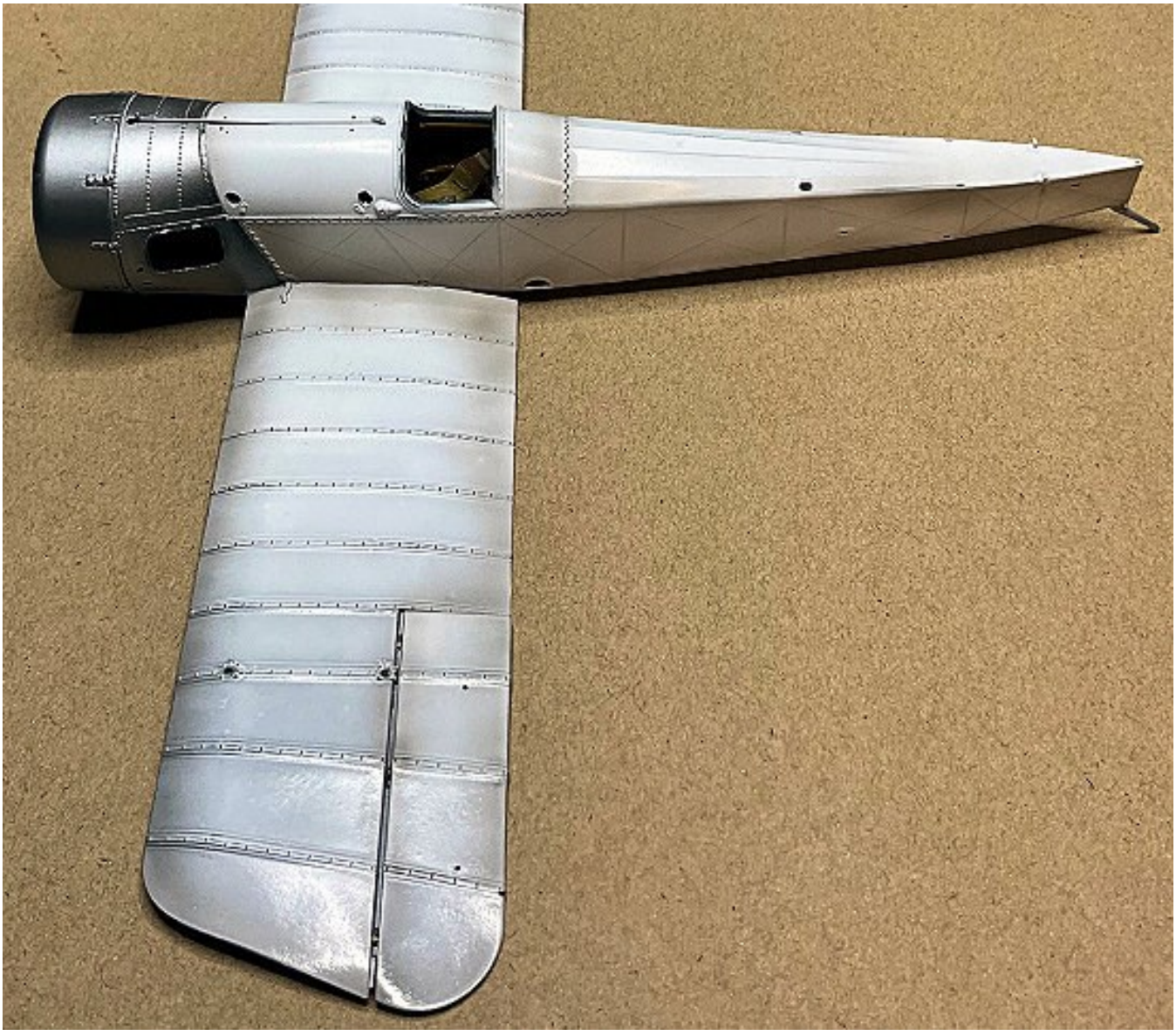
Along the top and bottom edges of the fuselage.

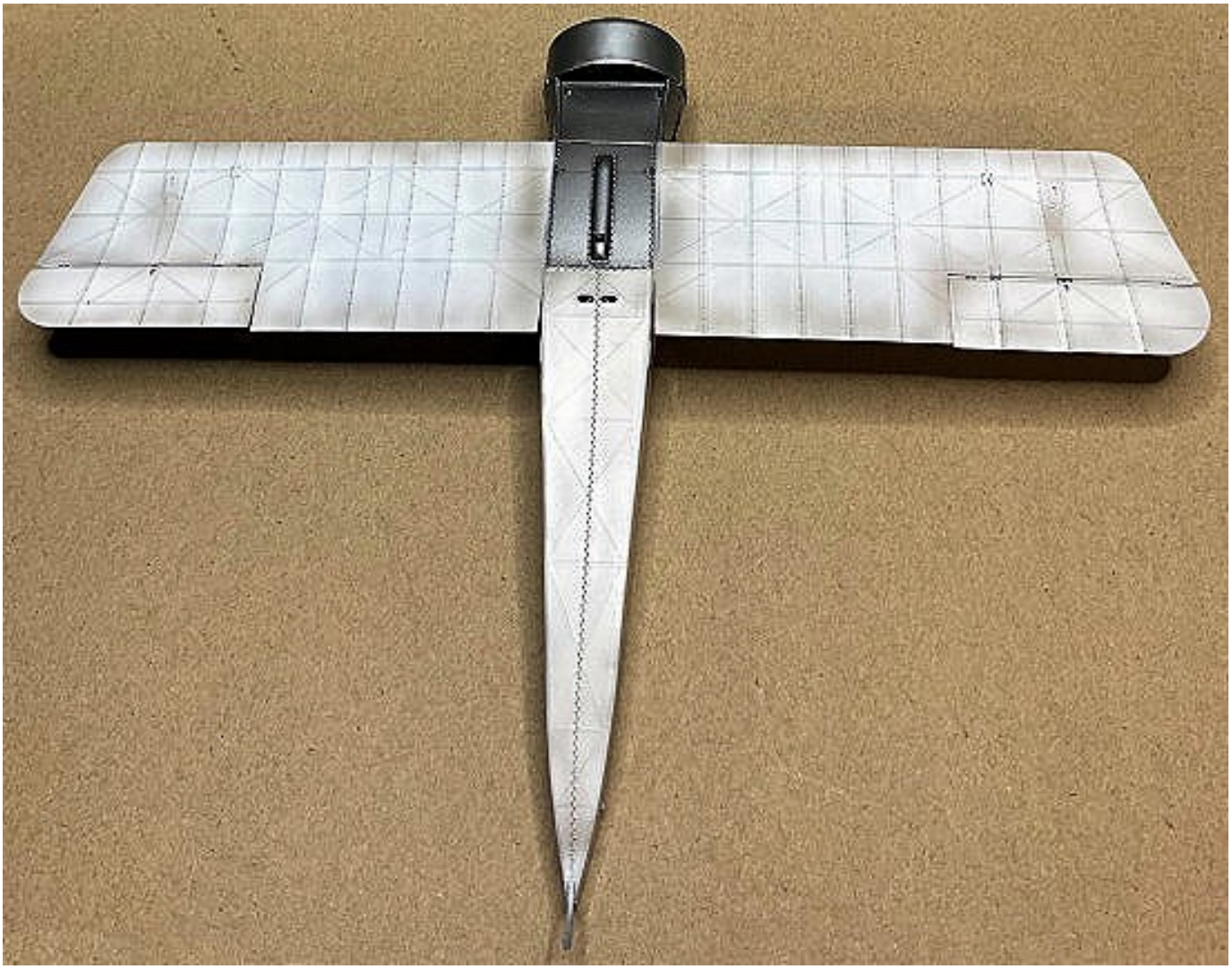
Along the lines of fuselage stitching.

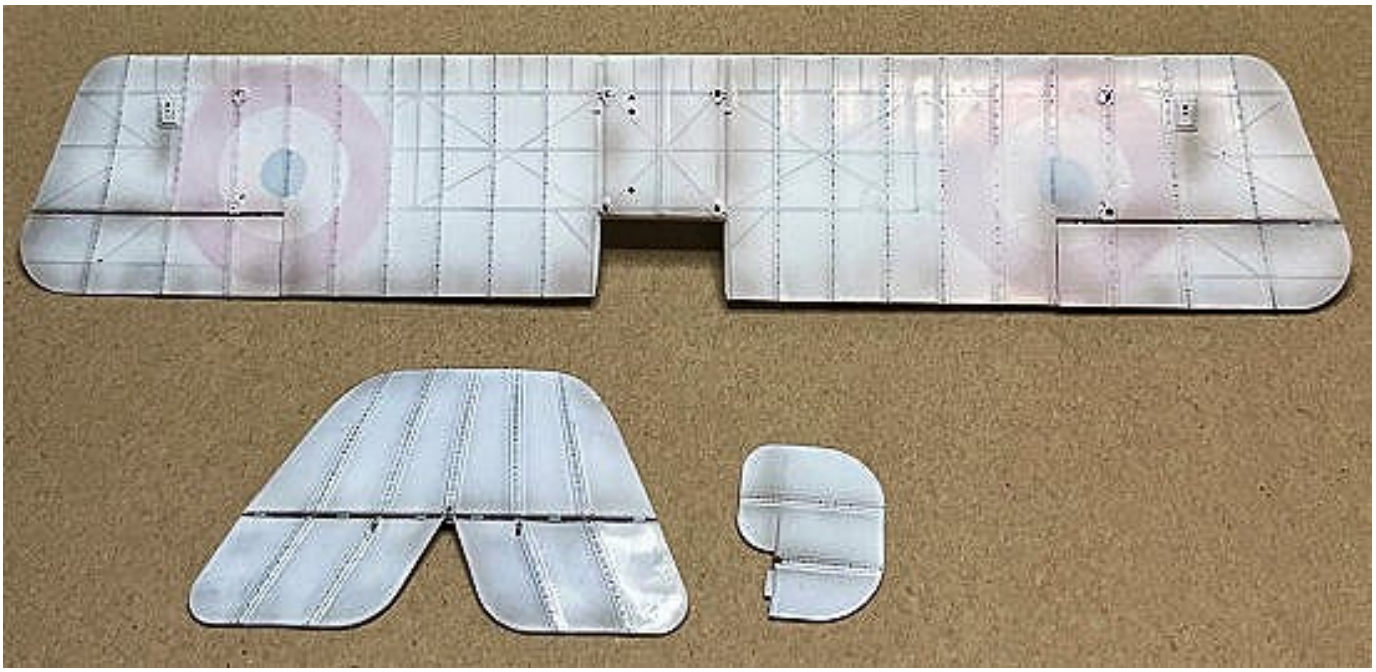
Along the top and underside lower wing roots.

Along the fuselage sides, under the tailplane (when fitted).

At the rear of the aileron control access panels on the underside of the upper and lower wings.







Decals:

Clear Doped Linen (CDL) decals:

NOTES: *The Clear Doped Linen decals used are the Aviattic' Bleached CDL (clear backed) (ATT32044) decal. The 'Aviattic' linen decals are unlike normal screen printed decals, in that when being applied, have the ability to be handled with slightly less care than normal and they have the ability to stretch slightly, which standard decals do not. That said, if you handle them too roughly, damage can occur.*

Make sure the model surface for each decal to be applied is clean and smooth or particles on the surface may cause 'silvering' (trapped air) under the decals when dry.

The 'Aviattic' CDL decals being used are not 'cookie' cut to the shapes required. Therefore the decals must be hand cut to shape.

Example of applying 'Aviattic' decals:

Lay the part with surface to have decal down onto the rear (blank) side of the decal sheet.

NOTE: *During the following step, do not press too hard when tracing the outline as this may mark the decal side of the sheet.*

Using a pencil, lightly trace the outline of the part onto the rear of the decal, allowing for any curvature of the part, such as wings.

Carefully cut out the decal shape.

Check that the decal fits correctly over the surface of the part.

NOTE: *To aid in adhesion, you can mix a small amount of PVA (white glue) into the decal water.*

Wet the model surface with clean water.

Soak the decal in the warm decal water for approximately 30 seconds or long enough to be able to move the decal on its backing sheet.

Carefully lift the decal on its backing sheet from the water. Make sure the decal does not fold over on itself, as it will be difficult to separate a fold once out of the water.

Carefully slide the decal off one end of the backing paper and position the decal end onto the wing and holding that end, slide out the backing paper.

Using large, flat brush or cotton buds, start to smooth out the decal at one end, removing any water from underneath and smoothing the decal onto the surface. Continue this along the length of the decal, taking care not to grip the decal surfaces with your fingers, as this will cause ripples in the decal.

Once the decal is smoothed down onto the model surface, apply pressure along the decal with soft and dry tissue paper or by finger pressure whilst wearing lint free cotton gloves. This will expel any remaining water and press the decal on to the model surface. Check over the decal to make sure there are no tears or folds, which need to be rectified before the decal sets.

NOTES:

If the decal covers locating holes, slots or other openings, prick through the decal over holes or slice the decal over openings, then brush either 'MicroScale' MicroSol' or ***sparingly*** *'Tamiya' X20A thinners into the holes or around the openings. This will soften and conform the decal.*

If the decal needs to be conformed around curved edges etc, brush ***sparingly*** *'Tamiya' X20A thinners across the decal edge. This will soften and conform the decal.*

Once fully dry and set, trim any excess decal from edges using a sharp blade, such as a shielded razor blade.

General:

Using the previous example, cut and apply CDL decals to the following model parts:

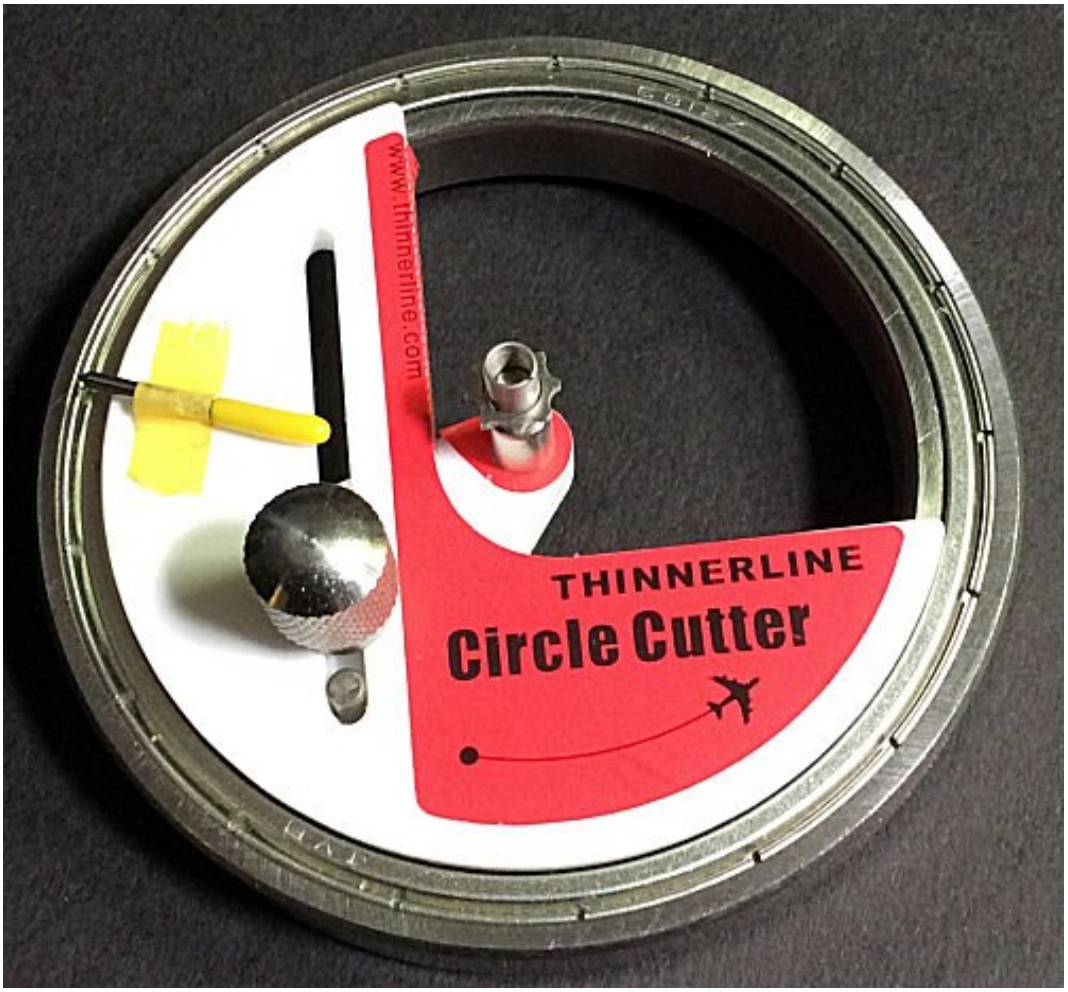
Upper wing - top and undersides (cut two outer sections and the centre section as separate decals, as this makes it easier to apply the decals, rather than one large decal).

Lower wings - top and undersides.

Tailplane and elevator - top and undersides.

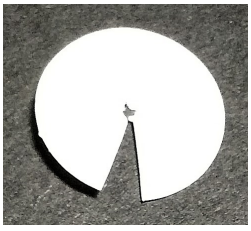
Ailerons x 4 - top and undersides.

NOTE: *I used a 'ThinnerLine Circle Cutter' to create circular decals from the 'Aviattic' CDL sheet for the wheel covers.*



Using the cutter I cut out two decals for the rear wheel covers (from the CDL sheet) and two decals for the front covers (PC sheet).

NOTE: *The front wheel covers are slightly conical in shape. The decals need to be cut slightly larger in diameter than required then a section cut out. This will allow the decal to be applied to the conical surface with the cut sides butting against each other.*



Outer wheel covers x 2.

Wheel inner covers x 2.

Fuselage:

NOTE: *The fuselage sides, top and underside can't be cut as in the previous example. Instead they should be cut by 'trial and error' cutting until you achieve the correctly shaped templates. You can use tracing paper to cut decal templates and check fit them to the model. Then use them a guides to trace and cut the actual decals.*

Cut and apply CDL decals to the following model parts:

Fuselage underside.

Fuselage sides.

Fuselage top rear.

Fuselage top decking panel.

Kit supplied decals:

NOTE: *The aircraft serial number 'C 1260' can be reproduced using* the *'Xtradecal' RAF letters and numbers set (X32021). The kit supplied decals required are 4 (x4), 3 (x2), 2 (x2).*

Refer to page 18 of the kit instruction manual for guidance on positioning and apply decals 4 and 3 to their relevant locations on the model.

As the rudder has been primed with white, the blue and red sections of decals 2 can be cut away and applied separately.

To represent serial number 'C 1260', cut out and apply the nearest sized numbers and letter to those supplied in the kit for 1264 and apply them to the fuselage rear sides (refer to page 12 of this build log)

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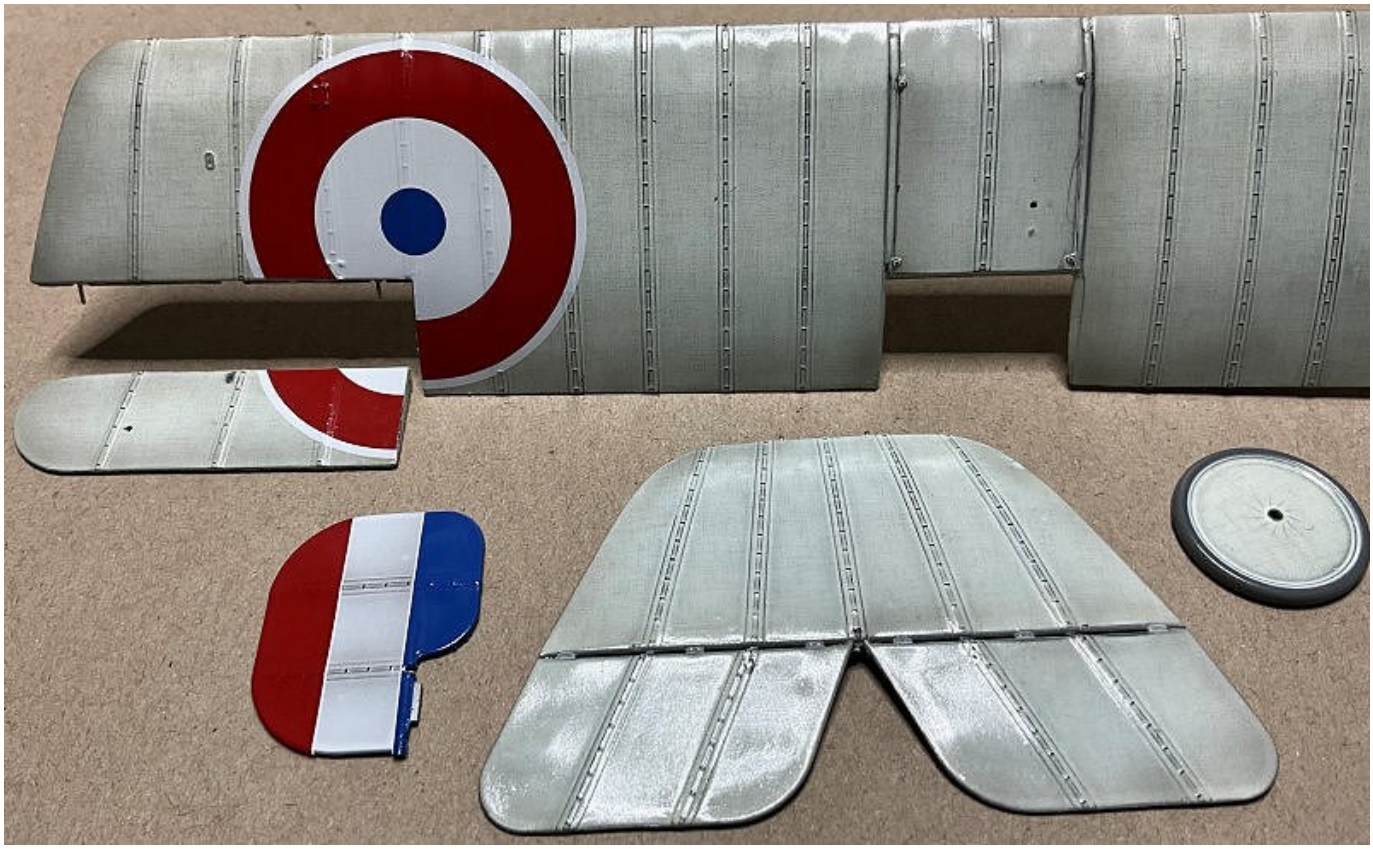
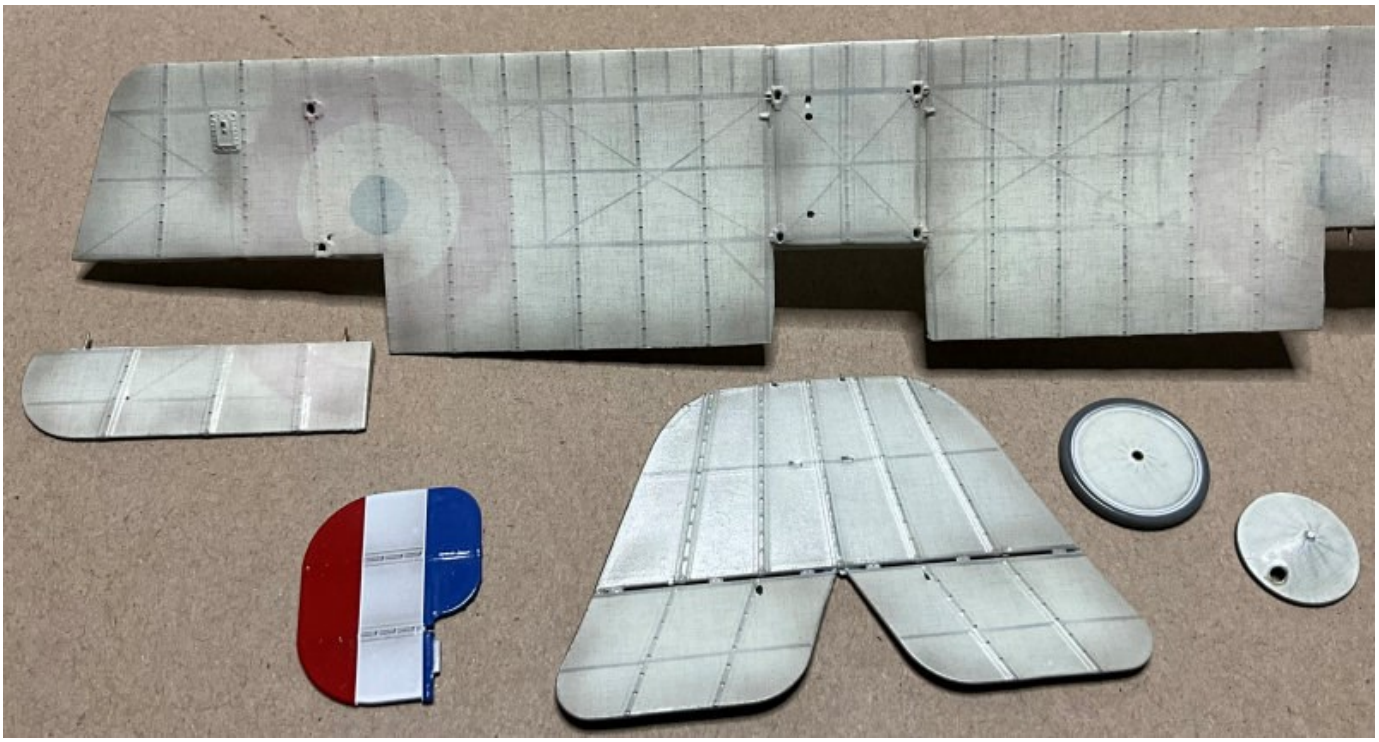
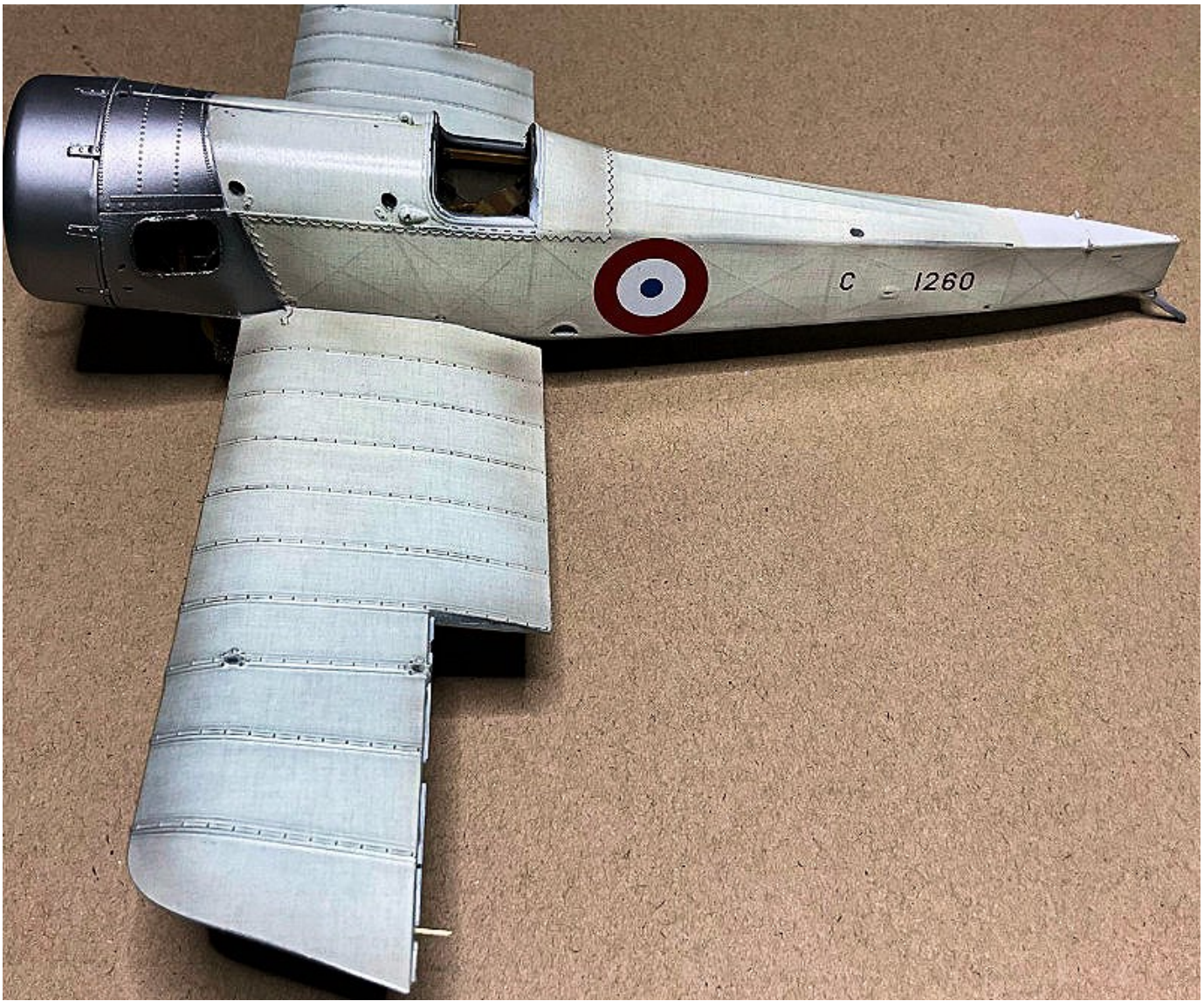
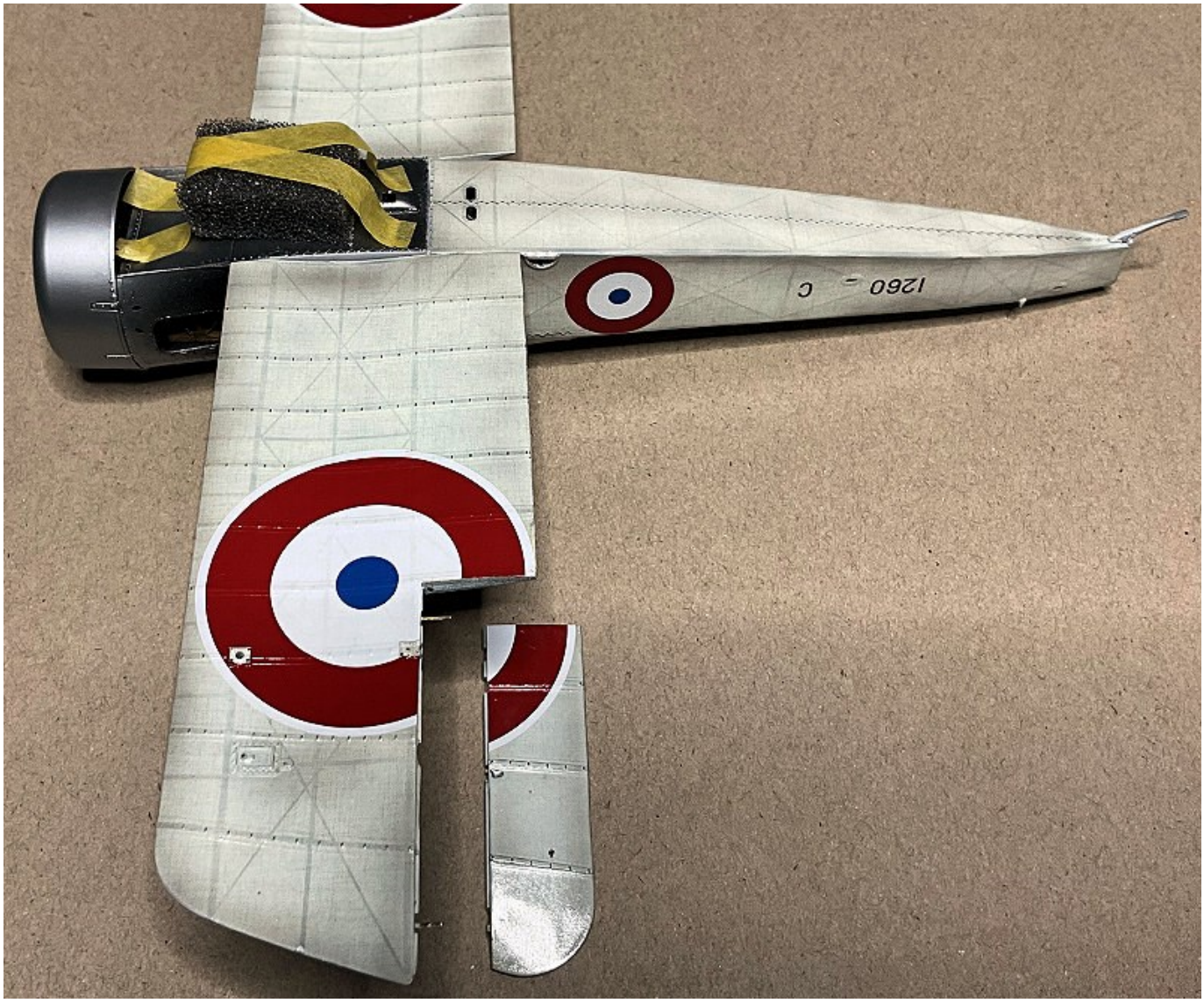





C 1260



Painting (continued):

NOTE: *The following details brush painting he various wing and fuselage details:*

'Mr. Colour' Stainless Steel (213) - Foot step surrounds, under wing aileron control access panels, tail skid support and shoe.

'Tamiya' Rubber Black (XF85) - Interplane mounting plates (top of lower wings and underside of upper wings), fuselage cabane strut mounting plates (underside of upper wing), elevator hinges, decking panel bracing wire mountings.

'Mr. Colour' Copper (219) - Fuel gauge supply pipe (forward section and rear bend.

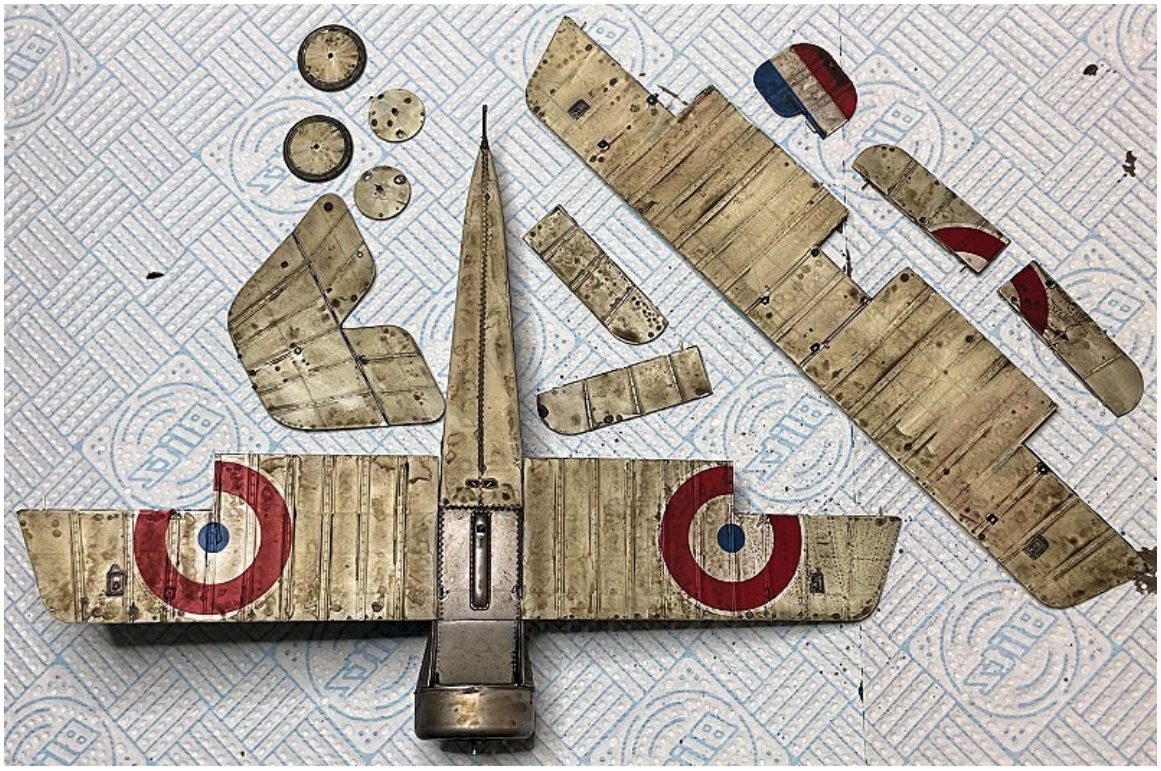
'AK interactive' Brown Leather (AK3031) - Cockpit surround padding, exit ports for elevator and rudder control cables.

'Tamiya' Flat Brown (XF64) - External starter switch, inner ledge of foot steps, tail skid, wood strip battens along lower edges of the decking panel

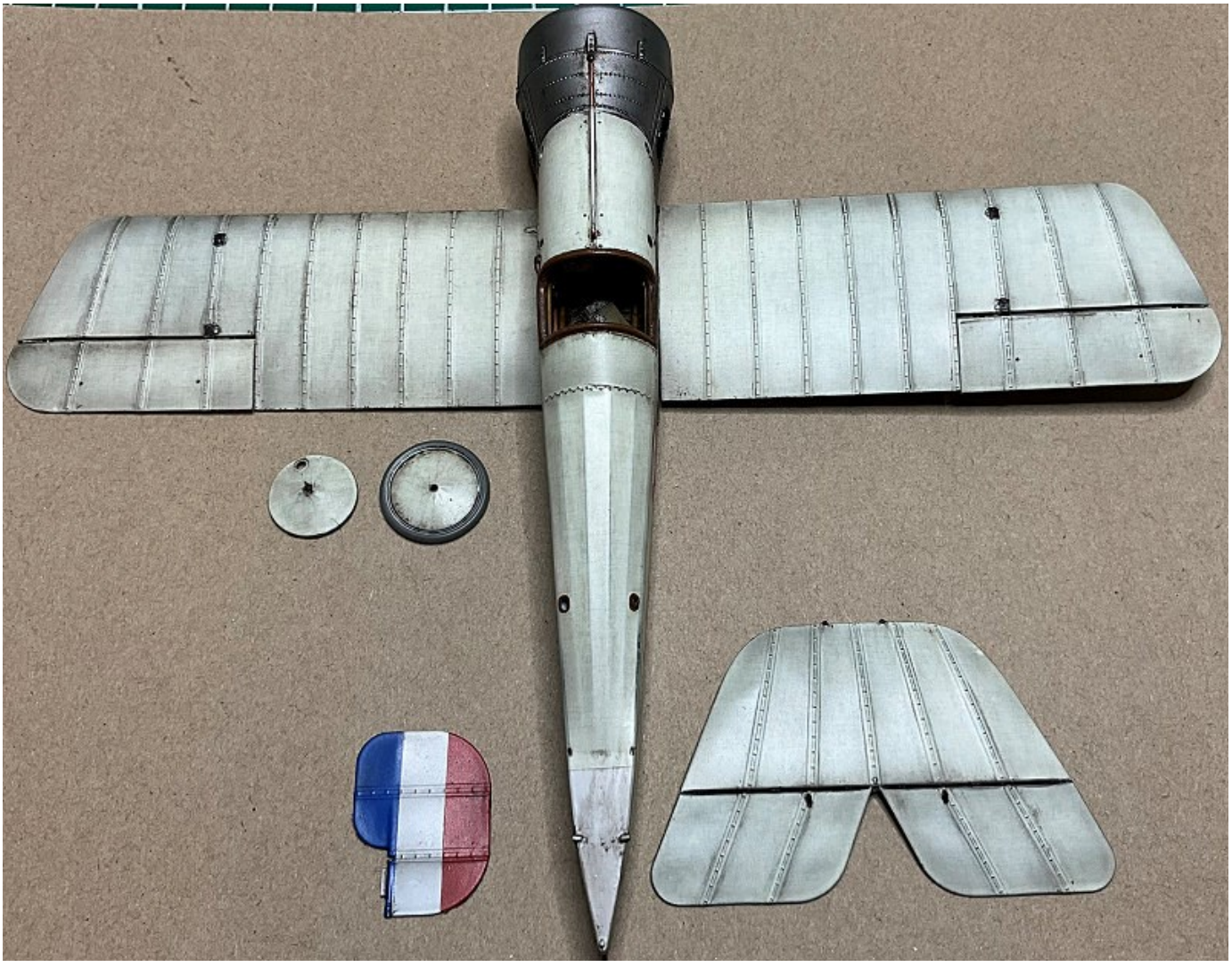
Weathering (continued):

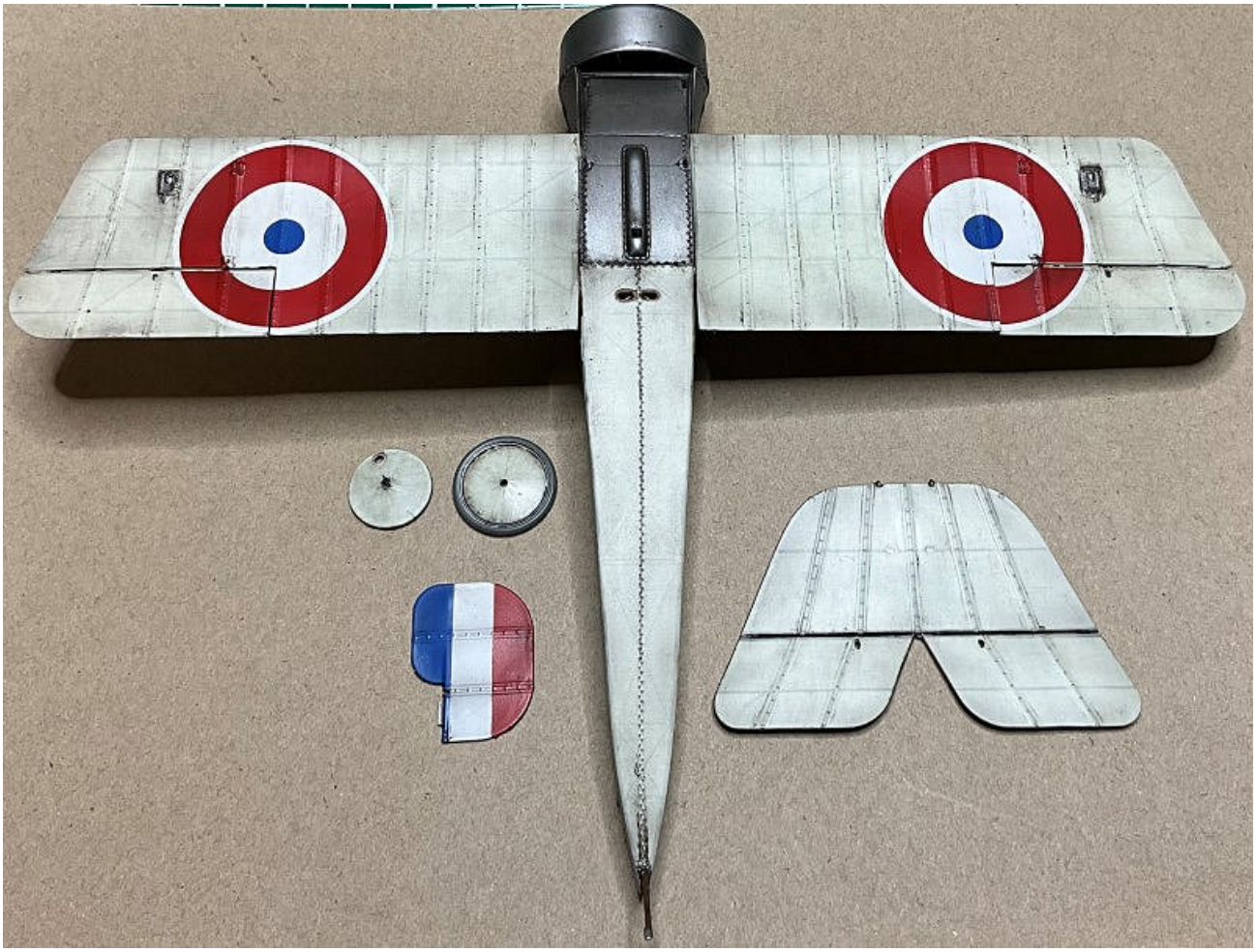
Airbrush the fuselage/lower wing assembly, upper wing, ailerons, tailplane/elevator, wheels and outer wheel covers with a semi-matte clear coat, such as 'Alclad' Light Sheen (ALC311) or similar.

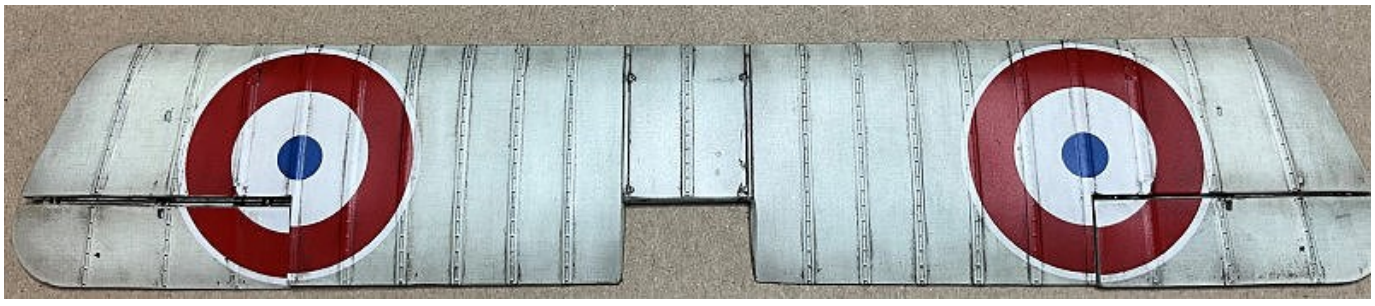
Refer to Part 3 (Weathering) of this build log for more information - apply your desired weathering finish to the parts. I used 'Flory Models' Dark Dirt.

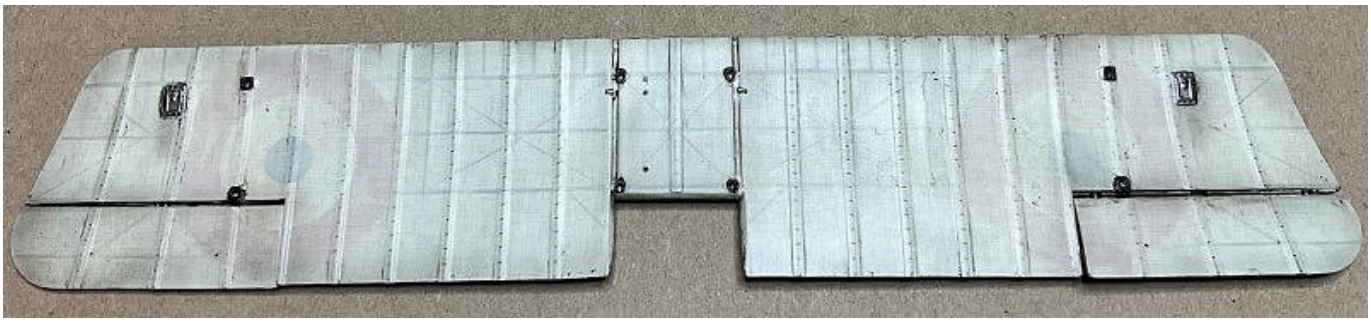


Once the wash has been removed to achieve the desired effect, seal the surfaces by airbrushing the surfaces with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar.









NOTE: ***As 'Alclad' finish can become sticky when handling, I suggest wearing either latex or lint free cotton gloves when handling the model from this point onwards.***

Painting (continued):

Struts and hoops:

Airbrush the following parts with a grey primer, such as 'AK Interactive' Grey (AK758) or similar:

Tailplane support struts (D2 and D3), fuselage cabane struts (A18 to A21), interplane struts (C3, A17, B13 and A16) and wing hoops (D7 and D8).

Airbrush the four interplane and four fuselage cabane struts with ‘Tamiya’ Dark Yellow (XF60) or similar.

NOTE: *Refer to Part (Wood Effects) of this build log for detail of applying wood effects using the ‘Windsor & Newton’ Griffin Alkyd oil paints.*

Apply the wood effect to the struts by brushing with ‘Windsor & Newton’ Griffin Alkyd Raw Sienna oil paint.

Brush paint the two wing hoops with ‘Tamiya’ Buff (XF57) or similar.

Brush paint the two wing hoops with ‘AK Interactive’ Light Wood Filter (AK-261) or similar.

Paint the following with ‘Tamiya’ Rubber black (X85) or similar:

The four tailplane support struts
The end fittings of the four interplane struts
The top fittings of the four fuselage cabane struts
The end fittings of the two wing hoops
The pitot tube and associated fitting on the left, forward interplane strut (C3).

Kit supplied decals (continued):

Apply the kit supplied decals (13 to the outer face of the two forward interplane struts.

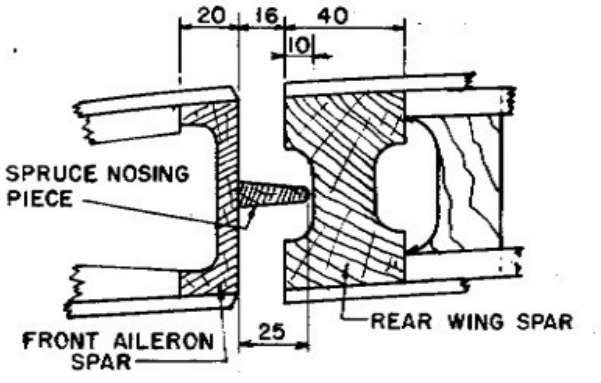
Painting (continued):

Airbrush the struts and wing hoops with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar.

‘Nosing piece’:

NOTE:

When the models ailerons are fitted to the wings, there is a 'ledge' between the trailing edge of the wings and leading edge of the ailerons.
As I understand it, the ledge represents the 'nosing piece', which was made from Spruce wood.
This strip was attached the rear face of the wing rear spar and had a rounded profile at its end.
The front spar of the ailerons were channelled to accept the rounded end of the 'nosing piece'.
It was effectively an air flow seal between the wings and ailerons, filling the gap made by the aileron hinges.
As the ailerons moved up or down, the end of the 'nosing piece' remained in the aileron channel and stopped airflow passing between the wing and aileron.
The linen covering of the wings and ailerons were wrapped around the edges and secured in place, most likely by either adhesive or tacks.
Therefore that thin strip between the wings and ailerons should be painted as exposed wood and not as being linen covered.



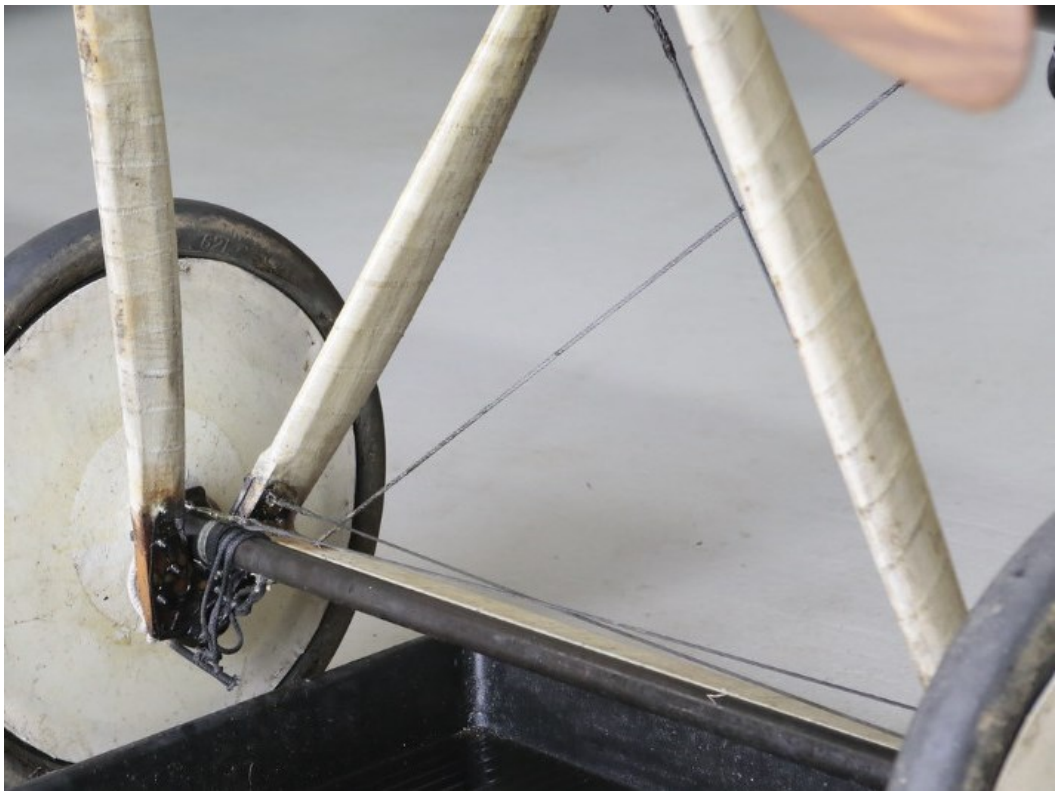
Brush paint the following with ‘AK Interactive’ British Uniform Light (AK3082) or similar:

The ‘ledge’ along the rear face of the upper and lower wings at the aileron locations.

The ‘ledge’ along the leading edge of the four aileron.

Landing gear decals:

NOTE: *The struts of the landing gear and the axle rear fairing were wrapped in linen, to protect them and help prevent the struts from splitting damage.*



Prime the landing gear assembly with a white primer, such as ‘AK Interactive’ White (AK759) or similar.

Airbrush a gloss clear coat, such as ‘Alclad’ Aqua Gloss 600 or similar, over the landing gear assembly.

NOTE: *The Clear Doped Linen decal used is the Aviattic’ Bleached CDL (clear backed) (ATT32044) decal.*

Cut strips of the CDL decal to the length and width of each side of the four struts of the landing gear.

Apply each decal strip to its side of the landing gear struts.

Cut two strips of the CDL decal to the length and width of each side of the axle rear fairing.

Apply each decal strip to its side of the axle rear fairing.

If necessary, brush ‘Microscale’ MicroSol over the decals to help conform them to the surfaces. ‘Tamiya’ X20A acrylic thinners can be used sparingly if the decals do not conform fully.

Painting (continued):

Landing gear:

Brush paint the ends of the landing gear struts with ‘Tamiya’ Dark Yellow (XF60) or similar.

NOTE: *Refer to Part (Wood Effects) of this build log for detail of applying wood effects using the ‘Windsor & Newton’ Griffin Alkyd oil paints.*

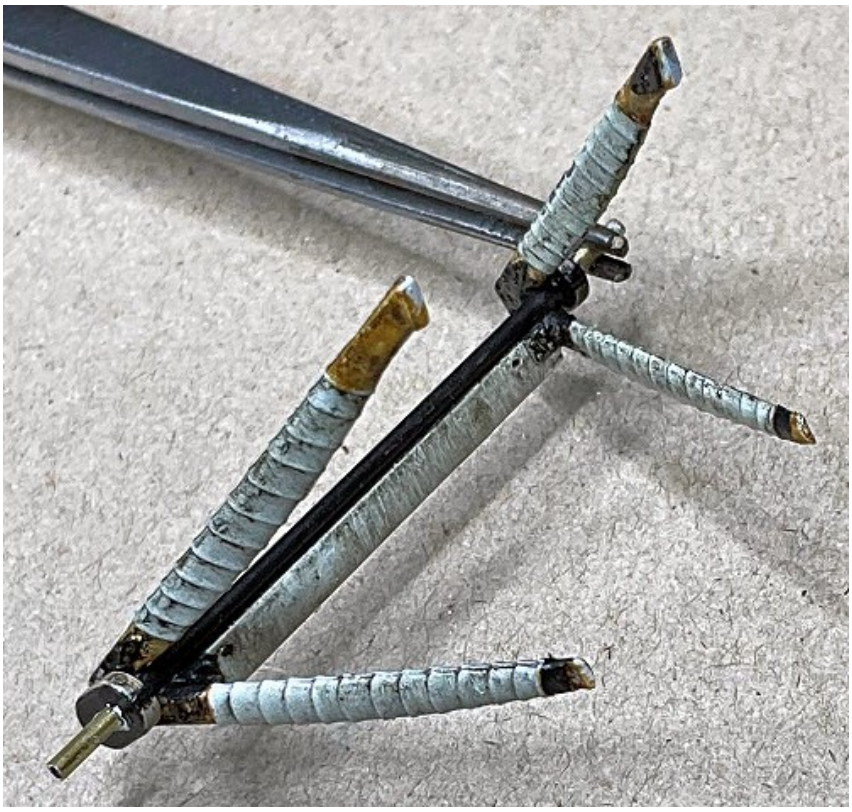
Apply the wood effect to the struts by brushing with ‘Windsor & Newton’ Griffin Alkyd Raw Sienna oil paint.

Brush paint the metal fittings on the ends of the landing gear struts with ‘Tamiya’ Rubber Black (XF85) or similar.

Airbrush the landing gear assembly with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar.

Refer to Part 3 (Weathering) of this build log for more information - apply your desired weathering finish to the parts. I used ‘Flory Models’ Dark Dirt.

Once the wash has been removed to achieve the desired effect, seal the surfaces by airbrushing the surfaces with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar.



Pre-rigging:

NOTE: *Refer to Part 12 (Preparation for external) of this build log. Pre-rigging the model at this stage of the build:*

Adds the relevant anchor points to the model

Attaches any rigging lines that would otherwise be difficult to attach later

Attaching control cables to the various control horns.

Make sure all of the pre-drilled rigging holes made in Part 12 of this build log are clear of any decal and paint. If necessary, run the appropriate sized drill through the holes to clear them.

Cement the pre-rigged rudder control horn (D17) into its locating slot in the rudder.

Pass one control line on each pre-rigged elevator control horn (D15) through the locating slot in the elevator.

Cement the two elevator control horns centrally in their locating slots in the elevator.

Assembly (continued):

NOTE: *During the following step, remember to fit each aileron at its correct location on the wings and at its intended angle (aligned with the wings or slightly raised or lowered).*

Make sure all decal or paint is removed from the added locating rods for the ailerons.

Using thin CA adhesive, secure the four ailerons in position in their respective locations on the upper and lower wings.

Make sure all decal or paint is removed from the two locating recesses and lugs in the underside of the tailplane and top of the fuselage.

Cement the tailplane in position on the fuselage.

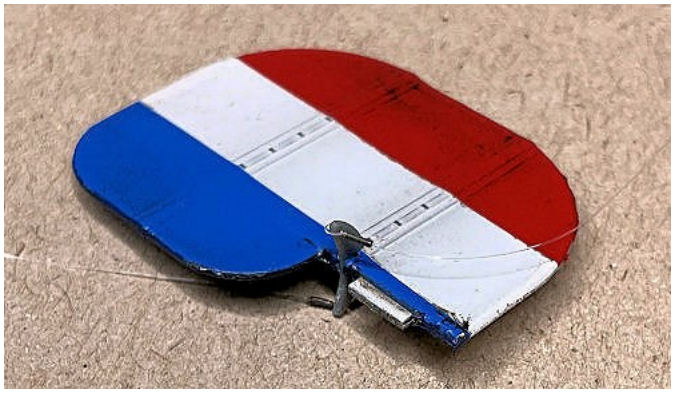
Make sure all decal or paint is removed from the locating recesses in the fuselage rear and underside of the tailplane for the four tailplane bracing struts (D2 and D3).
fuselage and the tops of the landing gear struts.

Cement the tailplane bracing struts in position between the fuselage and tailplane.

Make sure all decal or paint is removed from the landing gear four locating recesses in the fuselage and the tops of the landing gear struts.

Cement the landing gear in position in the fuselage.

Using thin CA adhesive, secure the photo-etch access panel (PE2) in position on the upper, left side of the engine cowl



Machine gun mountings:

NOTE: *The various parts for the machine gun mountings were made previously in Part 9 (Weapon) of this build log.*

Using thin CA adhesive, secure the created mountings, including the mounting rail, in position in the upper wing, making sure the parts are correctly positioned.

NOTE: *During the following steps, take care to not allow paint onto the surfaces of the upper wing.*

Brush paint a grey primer, such as ‘Model Air’ (71.097) or similar, over the fitted gun mountings.

Brush paint ‘Tamiya’ Rubber Black (XF85) or similar, over the fitted gun mountings.

NOTE: *Dry brush by using a domed and soft brush, which has a very light dusting of paint. Dry off paint on the brush on an absorbent paper before dry brushing the part.*

Dry brush with ‘Mr. Colour’ Super Iron 2 (203) or similar.

Pre-rigging (continued):

Preparation:

NOTE: *At this stage of the build it's best to pre-rig as much of the external rigging wires and flight control cables locations as possible, as access will be restricted when the model is assembled.*

Refer to Part 6 (Rigging) of this build log and pages 9, 11, 12, 14 to 17 of the kit instruction manual for more information.

The kit parts have some pre-moulded rigging locations. If drilling additional rigging points into the model, take care to not drill the holes too close to strut locations.

Make sure all pre-drilled rigging holes are clear of decal and paint. Test fit turnbuckles and Anchor Points before securing in position.

The rigging materials used are:

'Steelon' or 'Stroft GTM' 0.08 and 0.12mm diameter mono-filament,
'Gaspatch' 1/48th scale metal turnbuckles (Type B, C and Anchor Points),
'Albion Alloy's' 0.4mm or 0.5mm Brass tube (if using the following example 1 method).

Rigging example 1 - Tube rigging:

If necessary, carefully run a 0.3 mm diameter drill through the ‘eye’ end of the turnbuckle to remove any build up of metal.

NOTE: *Brass tube can be chemically blackened by immersion in solutions such as ‘Blacken-It’ or similar.*

Cut a short length of blackened tube (0.4 or 0.5mm diameter) Brass tube, such as that supplied from ‘Albion Alloys’ (MBT04 or MBT05) or similar.

Deburr the tube by running a 0.2 mm or 0.3 mm diameter drill through the tube.

NOTE: *Always **cut the length of line much longer than needed** to span between its attachment points. This allows for easier connecting during the final rigging stage.*

Cut a long length of 0.08 or 0.12 mm diameter mono-filament (fishing line), such as ‘Stroft GTM’ or ‘Steelon’.

Pass the line through the tube, then trough the ‘eye of a turnbuckle.

Pass the line back and through the tube.

Slide the tube up to, **but not touching**, the ‘eye’ of the turnbuckle.

Secure the lines to the tube end away from the turnbuckle, using thin CA adhesive.

Cut away any residual tag of line at the tube end.

Brush paint the centre barrel of the turnbuckle with ‘Mr. Colour’ Brass (219) or similar.

NOTE: ***I chose to use the tube rigging method (example 1) for attaching the mono-filament lines to control horns and Anchor Points.***

Rigging example 2 - Twist rigging:

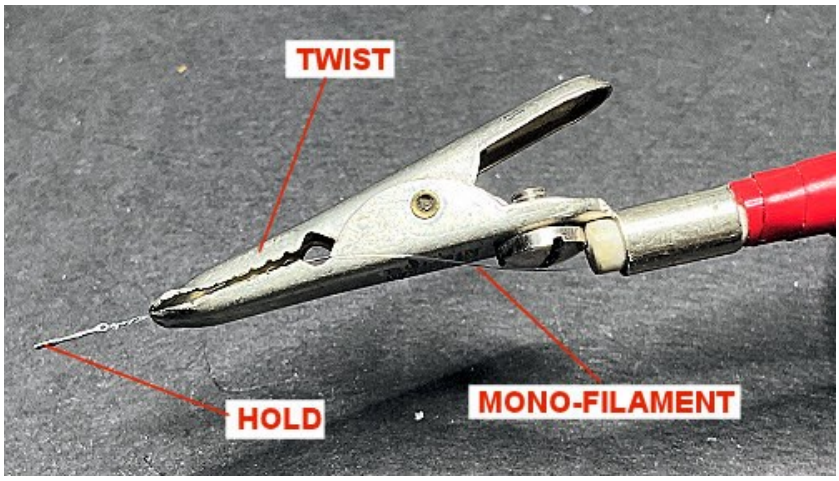
NOTE: *In reality the rigging lines were passed through the ‘eye’ end of a turnbuckle then looped back and spliced together. This example 2 will look more realistic, although it’s not as easy to achieve as when using the example 1 (Tube rigging) method.*

If necessary, carefully run a 0.3 mm diameter drill through the ‘eye’ end of the turnbuckle to remove any build up of metal.

NOTE: *Always cut the length of line **much longer** than needed to span between its attachment points.*

Pass the line through the ‘eye’ end of a turnbuckle.

NOTE: *To hold and twist lines together I used a paper ‘crocodile’ clip attached to one end of a rod.*



Pass the line back and hold the lines together with the ‘crocodile’ tool.

Holding the turnbuckle firmly, twist the ‘crocodile’ tool to twist the lines together. Leave the loop of line in the turnbuckle ‘eye’ end free to move. Only twist approximately 4 mm of line from the turnbuckle.

Secure the twisted lines together using thin CA adhesive.

Cut away any residual tag of line leaving only the twisted joint of lines.

Brush paint the centre barrel of the turnbuckle with ‘Mr. Colour’ Brass (219) or similar.

NOTE: ***For a more realistic look I chose to use the twist rigging method (example 2) for attaching the mono-filament lines to the turnbuckles.***

Under wing aileron control cable:

Using example 2 as a guide, attach a mono-filament line of 0.08 mm diameter to each end of a ‘Gaspatch’ 1:48th scale turnbuckle (Type C).

Cut the ends of the lines such that they can be fully inserted into the pre-drilled holes in the control line lugs, rearwards from the fuselage forward cabane strut locations. The turnbuckle should be positioned centrally between the strut locations.

Using thin CA adhesive, secure one line into its pre-drilled locating hole.

Insert the opposite line end into its pre-drilled locating hole and keeping the line taut, secure it in position using thin CA adhesive.

Fuselage cabane strut bracing:

Using example 2 as a guide, attach a mono-filament line of 0.12 mm diameter to the ‘eye’ end of eight ‘Gaspatch’ 1:48th scale turnbuckle (Type B).

Temporarily fit the four fuselage cabane struts into their locating recesses in the underside of the upper wing, making sure they are at the correct angle to align with their fuselage locations. This will help aligning the pre-rigged lines between their end locations.

NOTE: *During the following step, make sure that:*

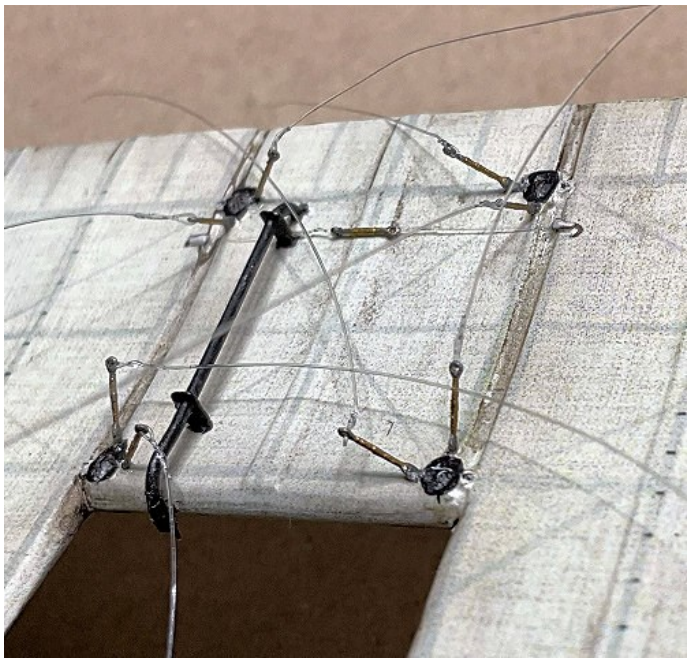
Each turnbuckle is located in its locating hole with the edge of the flat tang facing forwards (into the air flow).

Each turnbuckle is positioned in its locating hole at the correct angle to align it and its pre-rigged line with its pre-drilled locating hole in the top and sides of the fuselage decking panel.

No CA adhesive is allowed to contaminate the fuselage cabane struts in their locating recesses.

Using thin CA adhesive, secure each of the eight turnbuckles into their respective locating holes.

Remove the four fuselage cabane struts.



Flying wires:

Using example 2 as a guide, attach a mono-filament line of 0.12 mm diameter to the ‘eye’ end of **eight** ‘Gaspatch’ 1:48th scale turnbuckle (Type B).

Landing wires:

Using example 2 as a guide, attach a mono-filament line of 0.12 mm diameter to the ‘eye’ end of **four** ‘Gaspatch’ 1:48th scale turnbuckle (Type B).

Incidence wires:

Using example 2 as a guide, attach a mono-filament line of 0.12 mm diameter to the ‘eye’ end of **four** ‘Gaspatch’ 1:48th scale turnbuckle (Type B).

Landing gear bracing wires:

Using example 2 as a guide, attach a mono-filament line of 0.12 mm diameter to the ‘eye’ end of **four** ‘Gaspatch’ 1:48th scale turnbuckle (Type B).

Drag wires:

Using example 2 as a guide, attach a mono-filament line of 0.12 mm diameter to the ‘eye’ end of **four** ‘Gaspatch’ 1:48th scale turnbuckle (Type B).

Elevator control cables:

Using example 2 as a guide, attach a mono-filament line of 0.08 mm diameter to both of the ‘eye’ ends of **two** ‘Gaspatch’ 1:48th scale turnbuckle (Type C).

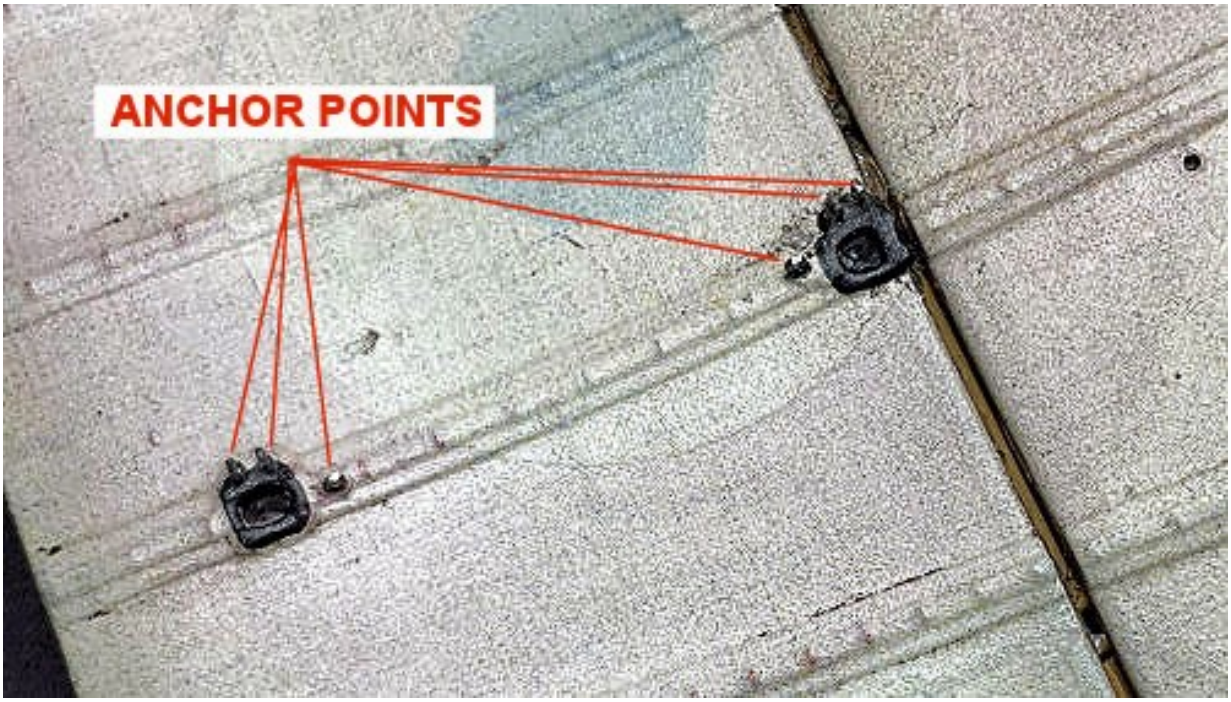
Anchor points:

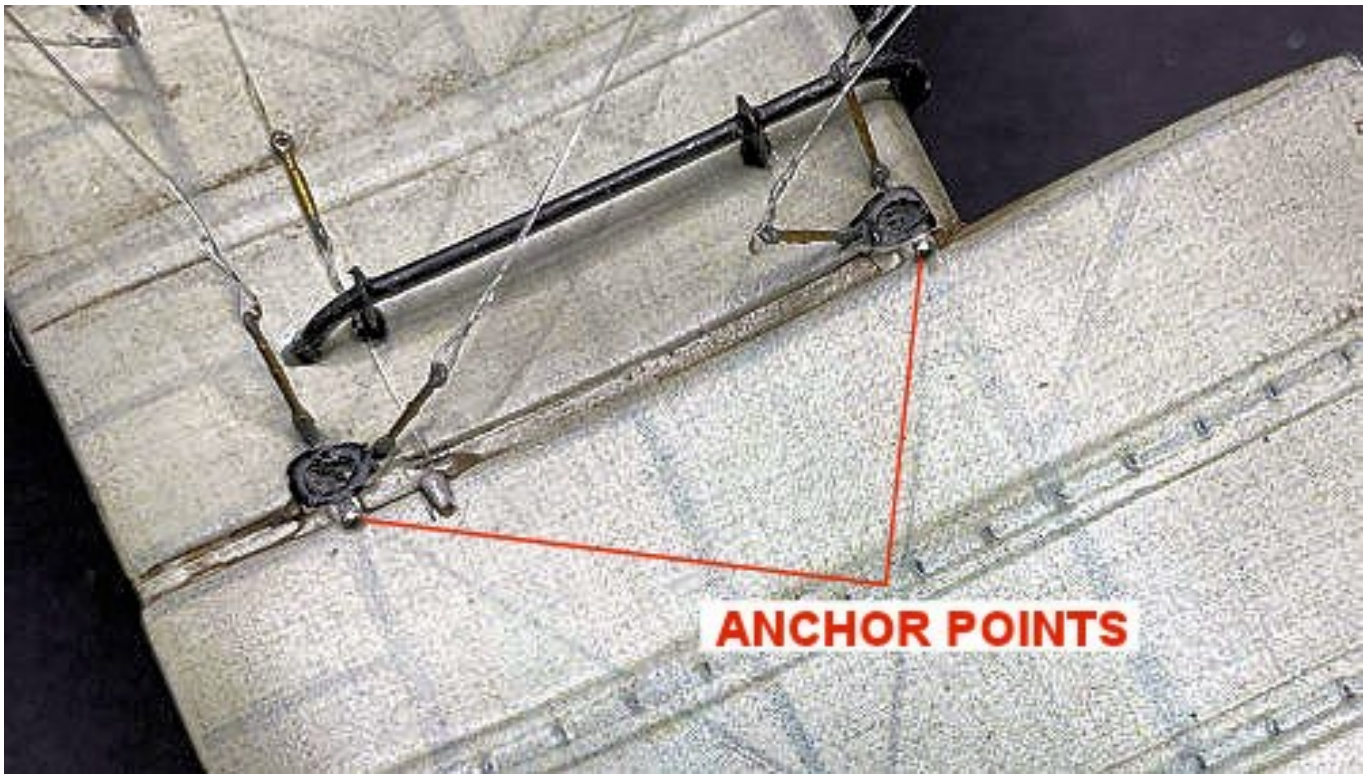
NOTE: *‘Gaspatch’ 1:48th scale Anchor Points are used to attach the free end of the pre-rigged lines to the model.*

Prepare sixteen separate Anchor Points (each Anchor Point break into two separate pieces).

NOTE: *During the following step make sure no adhesive blocks the ‘eye’ end on the Anchor Points.*

Using thin CA adhesive (applied to the tang only), secure the sixteen Anchor points into their pre-drilled locating holes in the underside of the upper wing.





Attaching the turnbuckles:

Flying wires:

Using thin CA adhesive, secure the turnbuckles of the **eight** pre-rigged flying wires into their pre-drilled locating holes in the fuselage at the lower wing roots. Make sure the angle of the turnbuckles align with their upper wing Anchor Points, inboard from the interplane struts.

Landing wires:

Using thin CA adhesive, secure the turnbuckles of the **four** pre-rigged landing wires into their pre-drilled locating holes in the lower wing, inboard from the interplane struts. Make sure the angle of the turnbuckles align with their upper wing Anchor Points, outboard from the fuselage cabane struts.

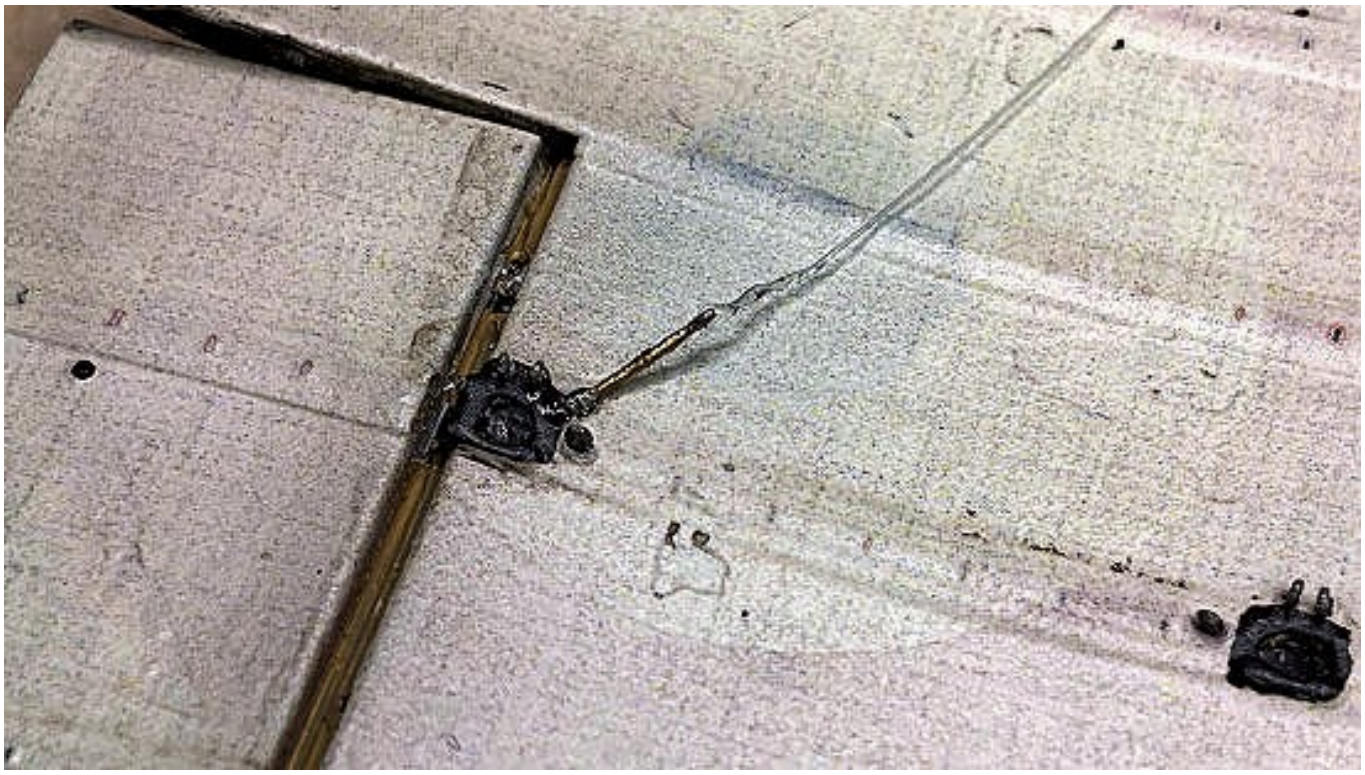
Incidence wires:

Using thin CA adhesive, secure the turnbuckles of the **four** pre-rigged incidence wires into their pre-drilled locating holes in the lower wing, between the interplane struts. Make sure the angle of the turnbuckles align with their upper wing opposite Anchor Points.

Drag wires:

Using thin CA adhesive, secure the turnbuckles of the **two** pre-rigged **upper** drag wires into their pre-drilled locating holes in the underside of the upper wing at the rear interplane struts. Make sure the turnbuckles align with their **upper** locating holes in the forward side panel of the fuselage.

Using thin CA adhesive, secure the turnbuckles of the **two** pre-rigged **lower** drag wires into their pre-drilled locating holes in the top surface of the lower wings, at the rear interplane struts. Make sure the turnbuckles align with their **lower** locating holes in the forward side panel of the fuselage.



Landing gear strut bracing wires:

Using thin CA adhesive, secure the turnbuckles of **two** pre-rigged landing gear cross bracing wires into their pre-drilled locating holes in the underside of the fuselage, inboard from the landing rear struts. Make sure the turnbuckles are angled to align with the opposite ends of the axle fairing.

Final rigging:

Landing gear cross bracing wires:

Pass the free end of the lines through the pre-drilled holes in the opposite outer ends of the axle fairing.

Pass the free end of the lines through the pre-drilled holes in the bottom of the landing gear struts.

Keeping the lines taut, secure them in position using thin CA adhesive.

Cut away any residual line from the outer face of the struts.

Axle cross bracing wires:

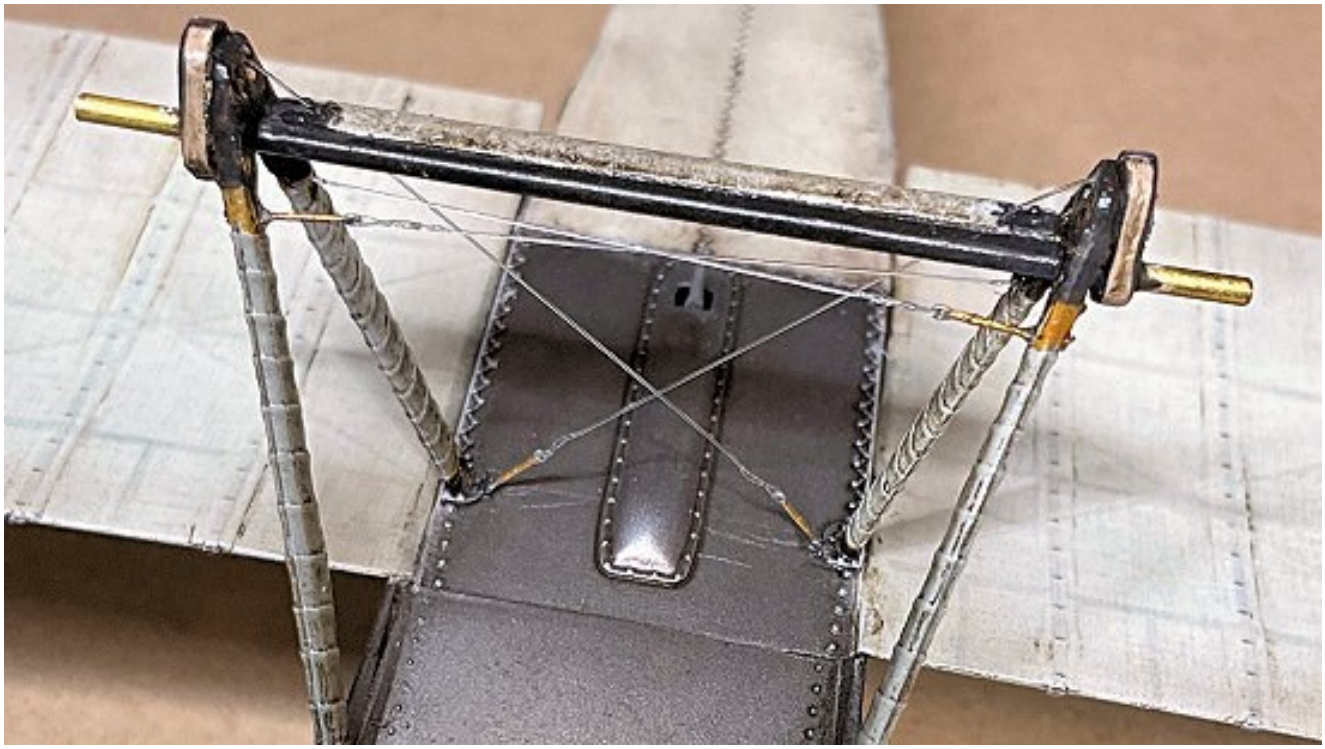
NOTE: *Due to the thin landing gear struts, snip off half of the flat tang on the turnbuckles.*

Using thin CA adhesive, secure the remaining **two** pre-rigged landing gear cross bracing wires into their pre-drilled locating holes in the landing gear forward struts, above the axle. Make sure the turnbuckles are angled to align with their locating lugs on the opposite ends of the landing gear on the rear struts.

Pass the free end of the lines through the pre-drilled holes in the locating lugs on the opposite ends of the landing gear on the rear struts.

Keeping the lines taut, secure them in position using thin CA adhesive.

Cut away any residual line from the rear of the locating lugs.



Fuselage forward cross bracing wire:

NOTE: *A bracing wire was attached across the fuselage, between the lower, forward corners of the fuselage side panels.*

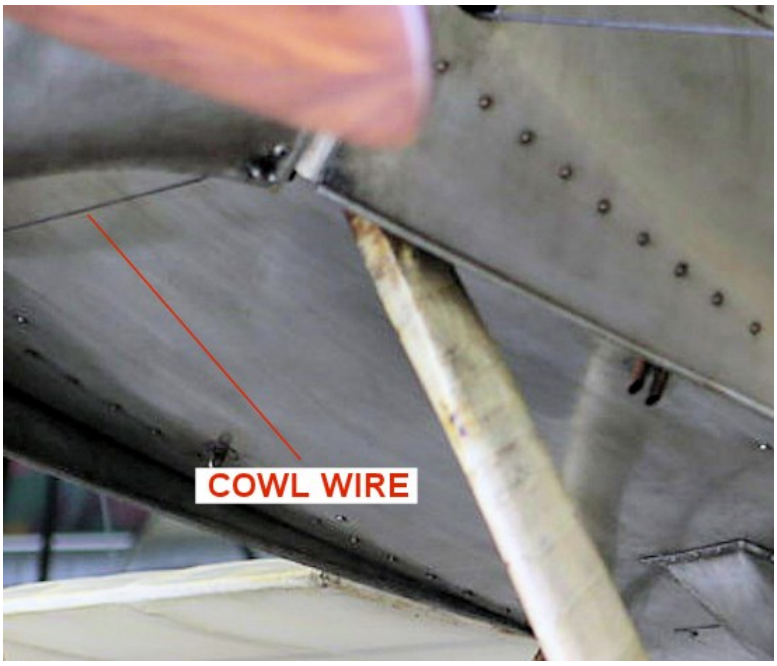
Drill a hole of 0.2 mm diameter through the lower, forward corners of the fuselage side panels.

Pass a length of 0.12 mm diameter mono-filament through one of the holes.

Slide two 0.4 mm diameter blackened Brass tubes onto the line.

Pass the other end of the line through the opposite drilled hole.

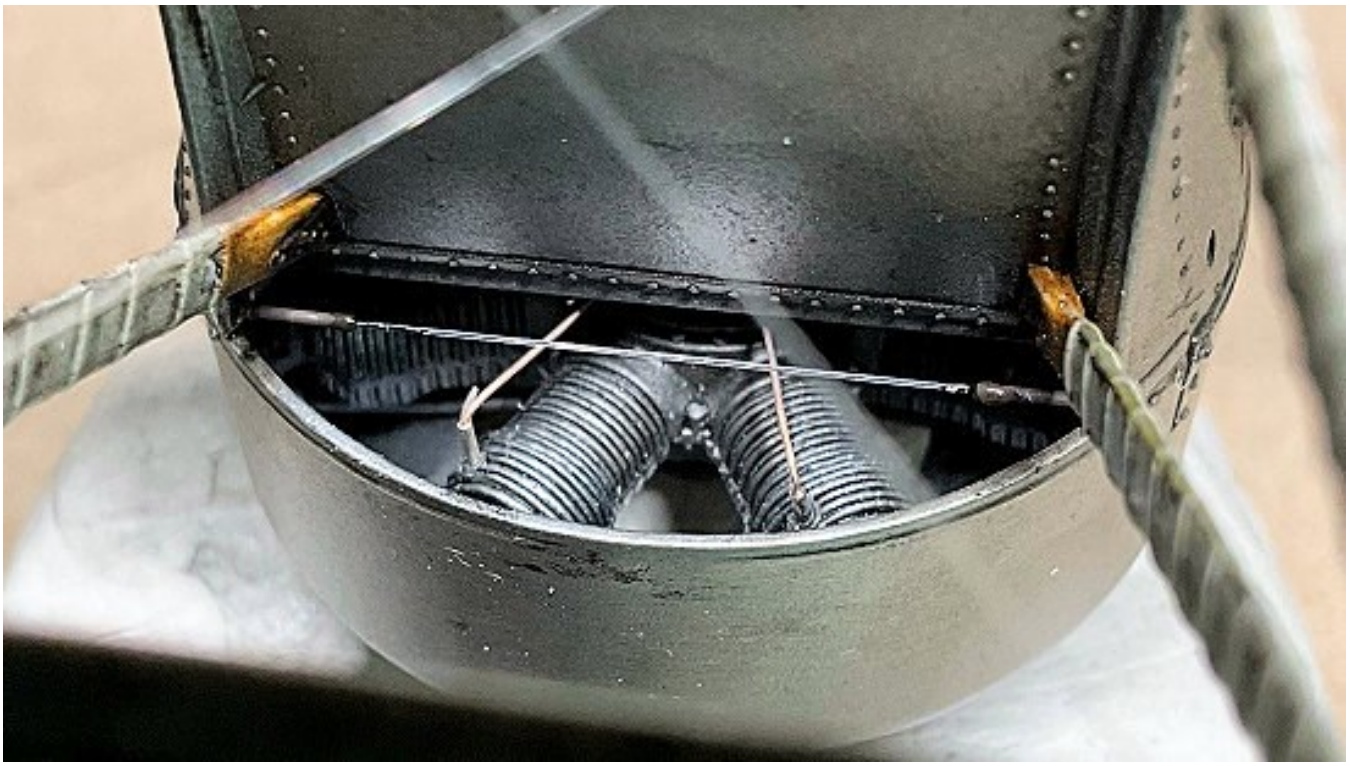
Move the two tubes to the centre of the line.

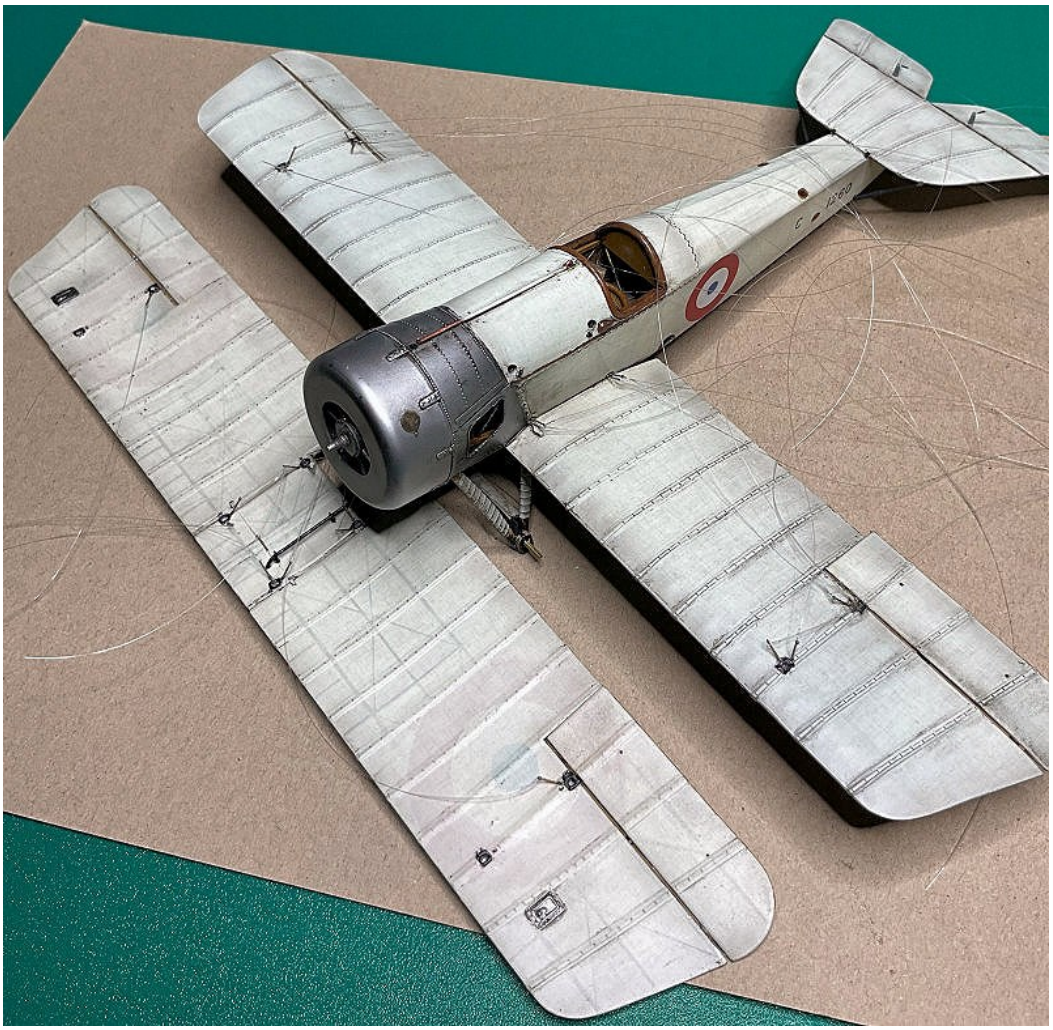


Holding the line ends taut, secure the line into the holes, using thin CA adhesive.

Slide each of the two tubes out to the inside of the fuselage panel and secure to the line using thin CA adhesive.

Cut away any residual line at the outside of the fuselage panels.





Assembly (continued):

NOTE: *I found the following sequence for fitting the upper wing onto the cabane and interplane struts to be the easiest. Make sure all rigging lines are kept clear of the strut locating recesses.*

Fully locate and cement the fuselage rear cabane struts (A18 and A19) into their locating recesses in the fuselage decking panel.

Fully locate and cement the fuselage front cabane struts (A20 and A21) into their locating recesses in the fuselage decking panel.

Apply cement into the four cabane strut locating recesses in the underside, centre section of the upper wing.

Carefully locate the upper wing onto the tops of the four cabane struts, making sure they fully locate.

Place the model down onto its landing gear and tail skid.

Place appropriate and heavy enough supports around and against the model to hold the model and upper wing steady while the cemented cabane strut set. **Make sure that**:

The upper and lower wings are parallel to each other when viewed from above

The upper and lower wings are parallel to each other when viewed from the sides

The trailing edge of the upper wing is just to the rear of the lower wing aileron leading edges, when viewed from above.

The upper wing leading edge is just to the rear of the fuel filler on the top of the fuselage decking panel, when viewed from above

The cabane struts are vertical when viewed from the front.

Allow the cemented cabane struts to fully set in position.

NOTE: *The wing interplane struts can be fitted after the cabane struts, as the outer section of both wings will flex slightly, allowing the struts to be located in their wing recesses. However, the model should be carefully handled and supported until the interplane struts have been cemented in position.*

Carefully hold the upper wing and fuselage assembly together to keep them centred and supported.

Insert the left interplane struts into their upper and lower wing locating recesses. Forward strut C3, rear strut A17. Make sure they fully locate into their locating recesses.

Insert the right interplane struts into their upper and lower wing locating recesses. Forward strut B13, rear strut A16. Make sure they fully locate into their locating recesses.

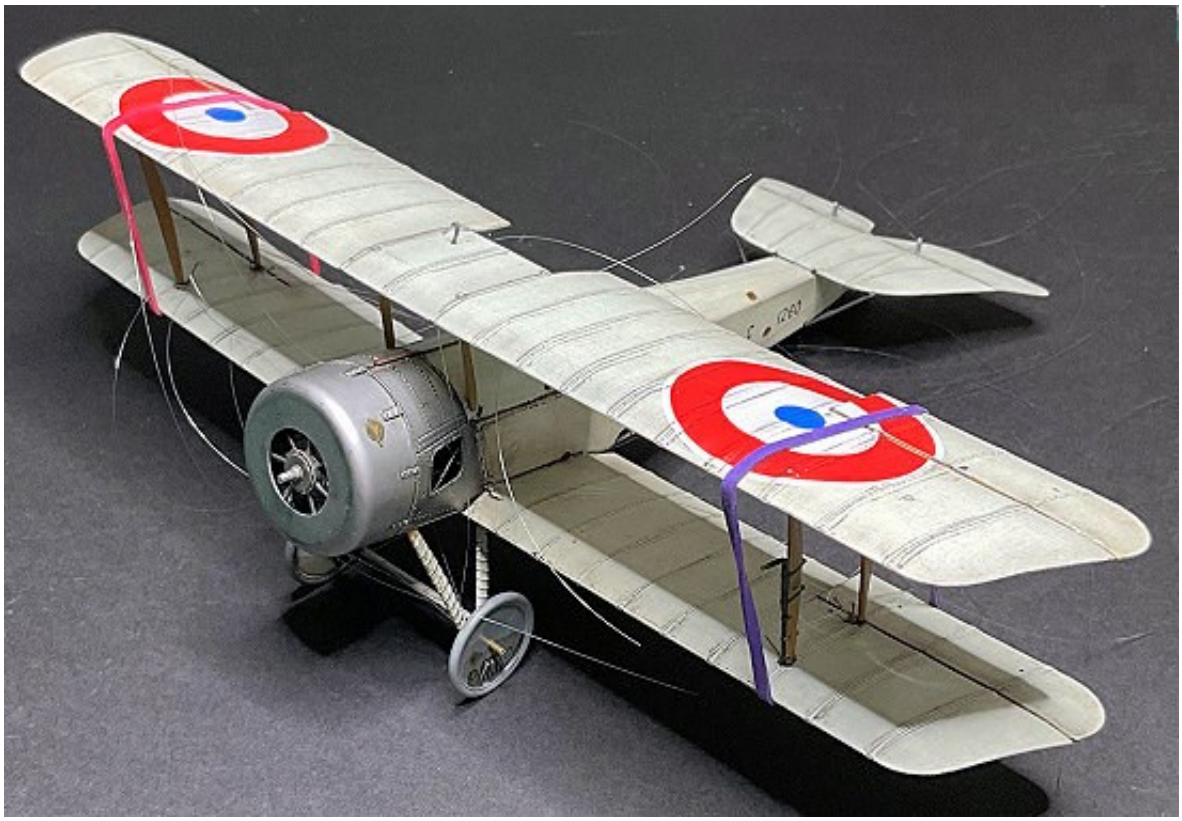
NOTE: *If necessary, elastic bands can be used over the wings to hold them into the struts.*

Cement the ends of the for struts into their upper and lower wing locating recesses.

Check that the upper and lower wings are aligned correctly, as detailed when fitting the fuselage cabane struts.

Allow the cemented interplane struts to fully set in position.

NOTE: *Rigging the model using mono-filament does add structural strength to the model, particularly between the upper and lower wings and fuselage.*
To avoid wing/strut separation when handling the model, the elastic bands around the wings (if used) can be left and only removed after the final wing rigging has been completed.



Final rigging (continued):

Rigging - final tensioning:

Invariably after rigging has been completed, some lines may be slack. This can be remedied by careful application of heat along the line, but should only be carried out once all rigging has been completed. Only then will you be able to see which lines require additional tensioning.

NOTE: *Take care not to linger at one area of a line with the heat source as this will melt the mono-filament causing the line to break. Also take care not to touch any part of the model or any other rigging, as this will also cause damage through melting.*

WARNING: *Care needs to be taken when using this method to tension line, as using a heat source is required.*

Carefully move a suitable heat source (I use a small electrical soldering iron) close to and along the slack line, keeping the heat source always moving. You will see the line tension as the applied heat takes effect, shrinking the line.

NOTE: *The following sequence for final rigging the model allows for easier access to the various rigging lines and will better hold the wings together during rigging*

Incidence wires:

Slide a blackened 0.5 mm diameter Brass tube, such as 'Albion Alloy's' MBT05 or similar, onto the free end of a pre-rigged incidence wire.

Pass the line diagonally up and through the fitted Anchor Point at the top, rear of the opposite interplane strut.

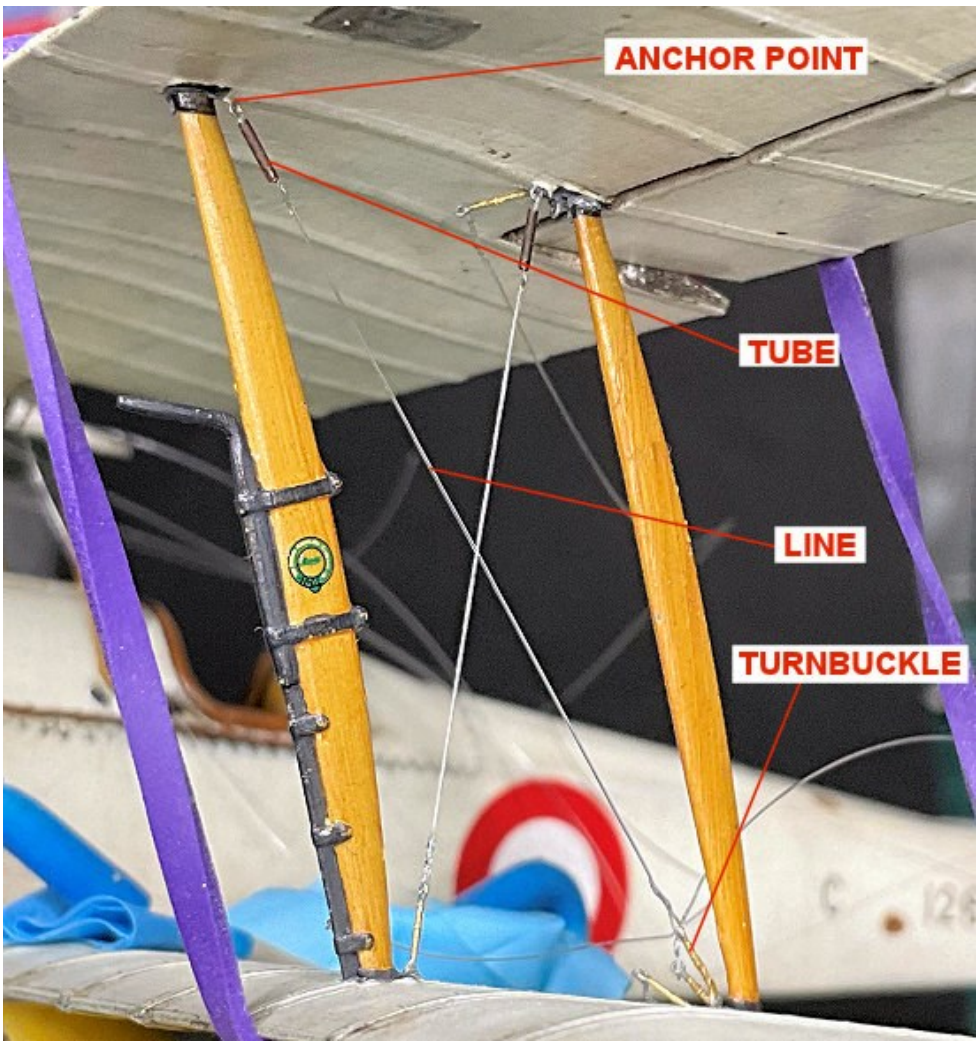
Loop the line back and through the tube.

Keeping the line taut, slide the tube up to the Anchor Point.

Secure the tube to the line using thin CA adhesive.

Once the adhesive has set, cut away any residual tag of line at the end of the tube.

Repeat the procedure to attach the remaining incidence wire and then the two incidence wires on the opposite side of the aircraft.



Fuselage cabane strut bracing:

Cross fuselage bracing wires:

Pass the free end of a pre-rigged cross fuselage bracing wire from the underside of the upper wing centre section diagonally down and over the fuel gauge supply pipe to the pre-drilled hole in the fuselage decking panel.

Trim the length of the line such that approximately 5mm can be inserted into the hole.

Keeping the line taut, secure the line in the hole using thin CA adhesive.

Repeat the procedure to attach the remaining three cross fuselage bracing wires into their pre-drilled holes.

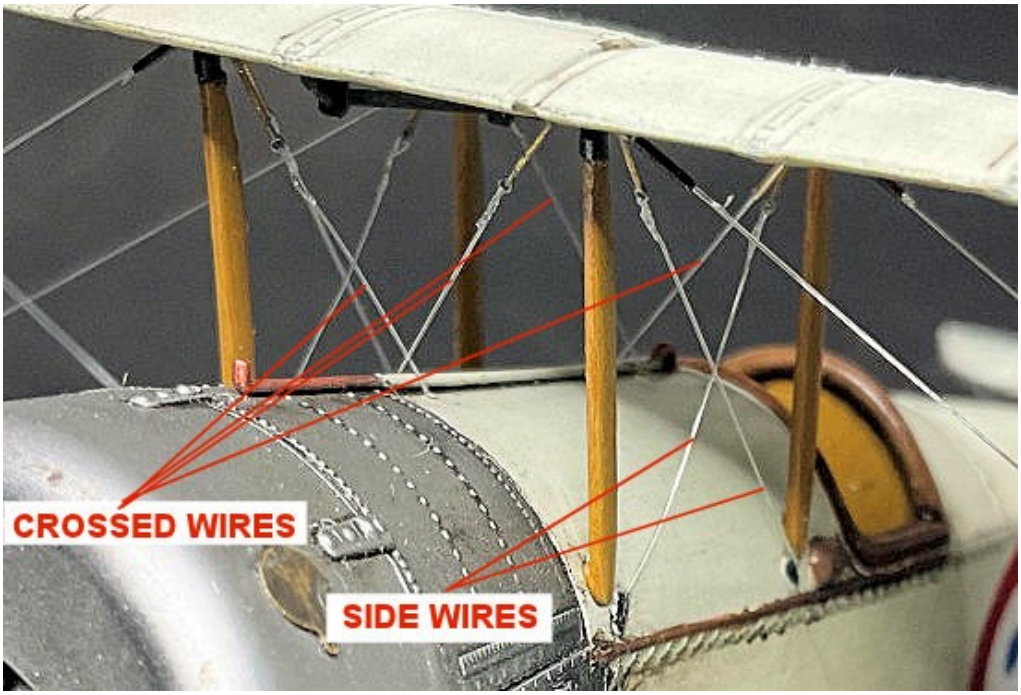
Between cabane strut bracing wires:

Pass the free end of a pre-rigged between cabane strut bracing wire diagonally down and across to its pre-drilled hole in the side of the fuselage decking panel.

Trim the length of the line such that approximately 5mm can be inserted into the hole.

Keeping the line taut, secure the line in the hole using thin CA adhesive.

Repeat the procedure to attach the remaining three cross fuselage bracing wires into their pre-drilled holes.



Flying wires:

Slide a blackened 0.5 mm diameter Brass tube, such as 'Albion Alloy's' MBT05 or similar, onto the free end of a pre-rigged flying wire.

Pass the line diagonally up and through the fitted Anchor Point on the underside of the upper wing, inboard from the top of the interplane strut.

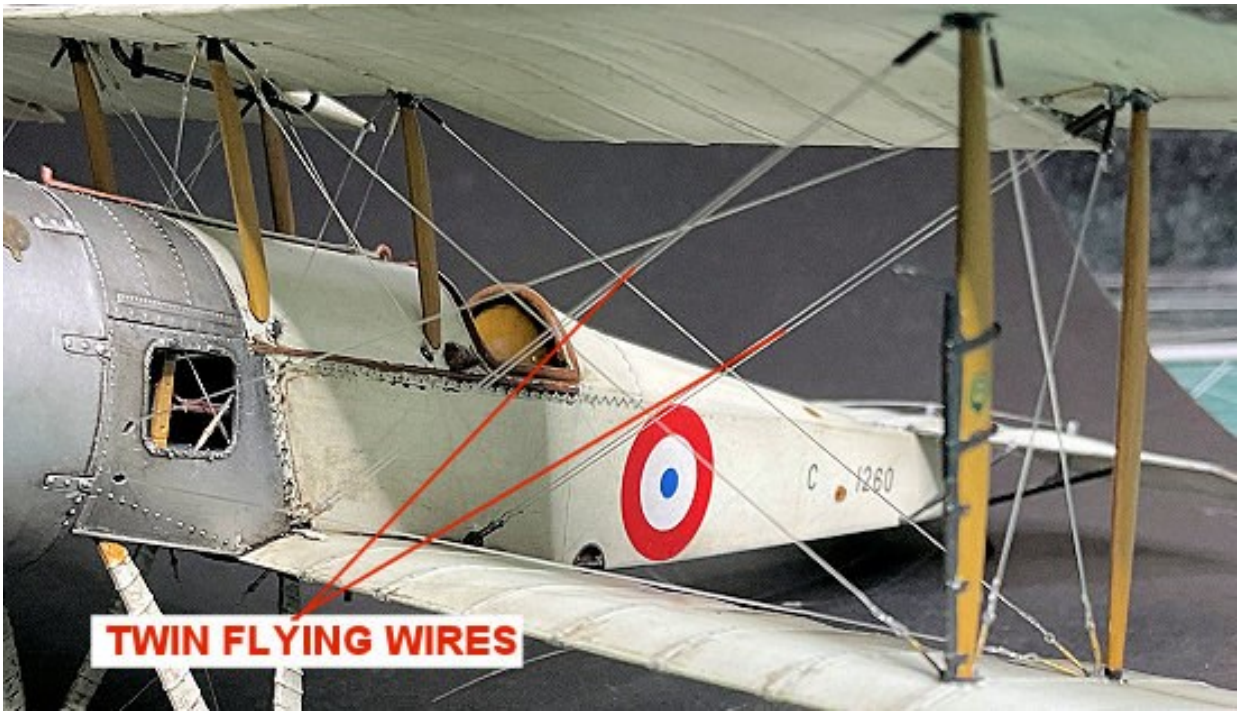
Loop the line back and through the tube.

Keeping the line taut, slide the tube up to the Anchor Point.

Secure the tube to the line using thin CA adhesive.

Once the adhesive has set, cut away any residual tag of line at the end of the tube.

Repeat the procedure to attach the remaining three flying wires on that side of the aircraft and the four flying wires on the other side of the aircraft.



Landing wires:

Slide a blackened 0.5 mm diameter Brass tube, such as ’Albion Alloy’s’ MBT05 or similar, onto the free end of a pre-rigged landing wire.

Pass the line diagonally up and through the fitted Anchor Point on the underside of the upper wing, outboard from the relevant fuselage cabane strut.

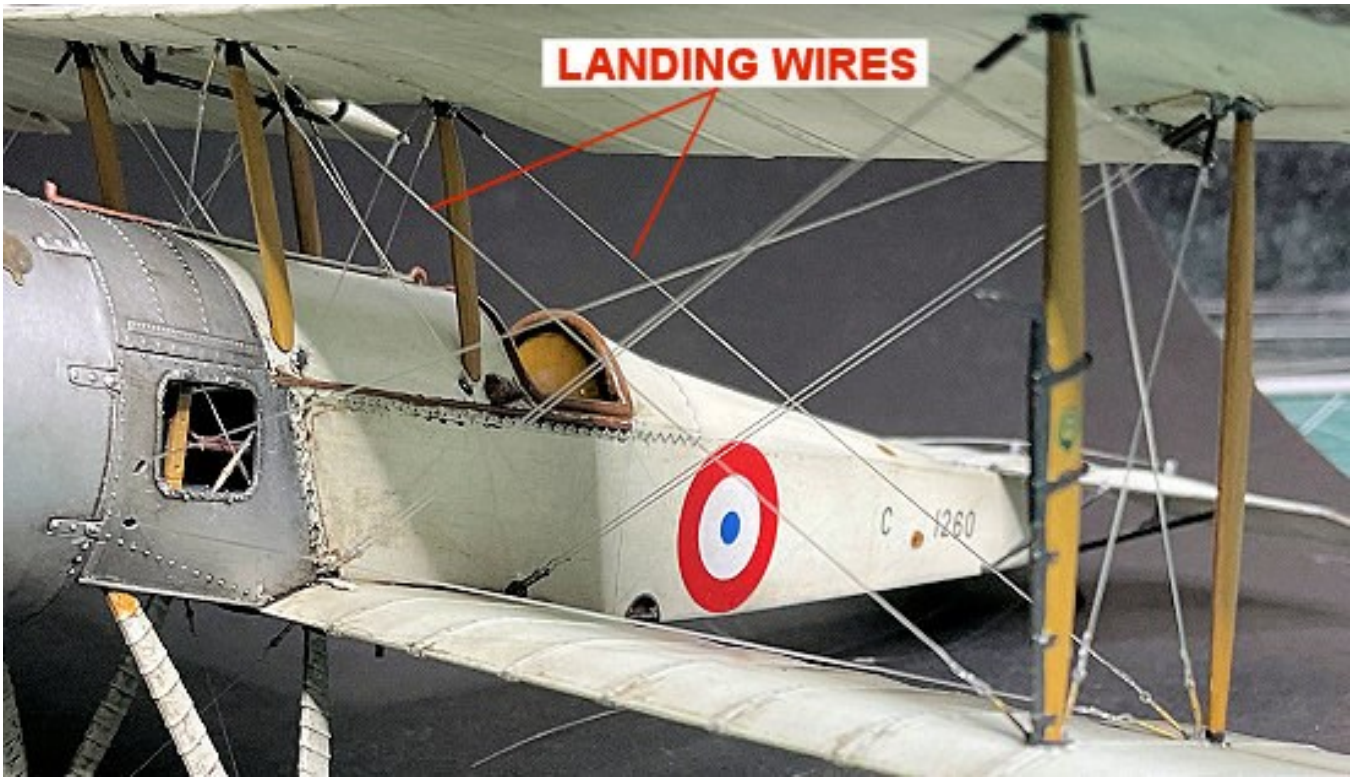
Loop the line back and through the tube.

Keeping the line taut, slide the tube up to the Anchor Point.

Secure the tube to the line using thin CA adhesive.

Once the adhesive has set, cut away any residual tag of line at the end of the tube.

Repeat the procedure to attach the remaining landing wire on that side of the aircraft and the two landing wires on the other side of the aircraft.



Drag wires:

Pass the free end of a pre-rigged upper drag wire (from the underside of the upper wing) diagonally down and through the upper hole in the side of the fuselage forward side panel.

Pull the end of the line out through the open access panel.

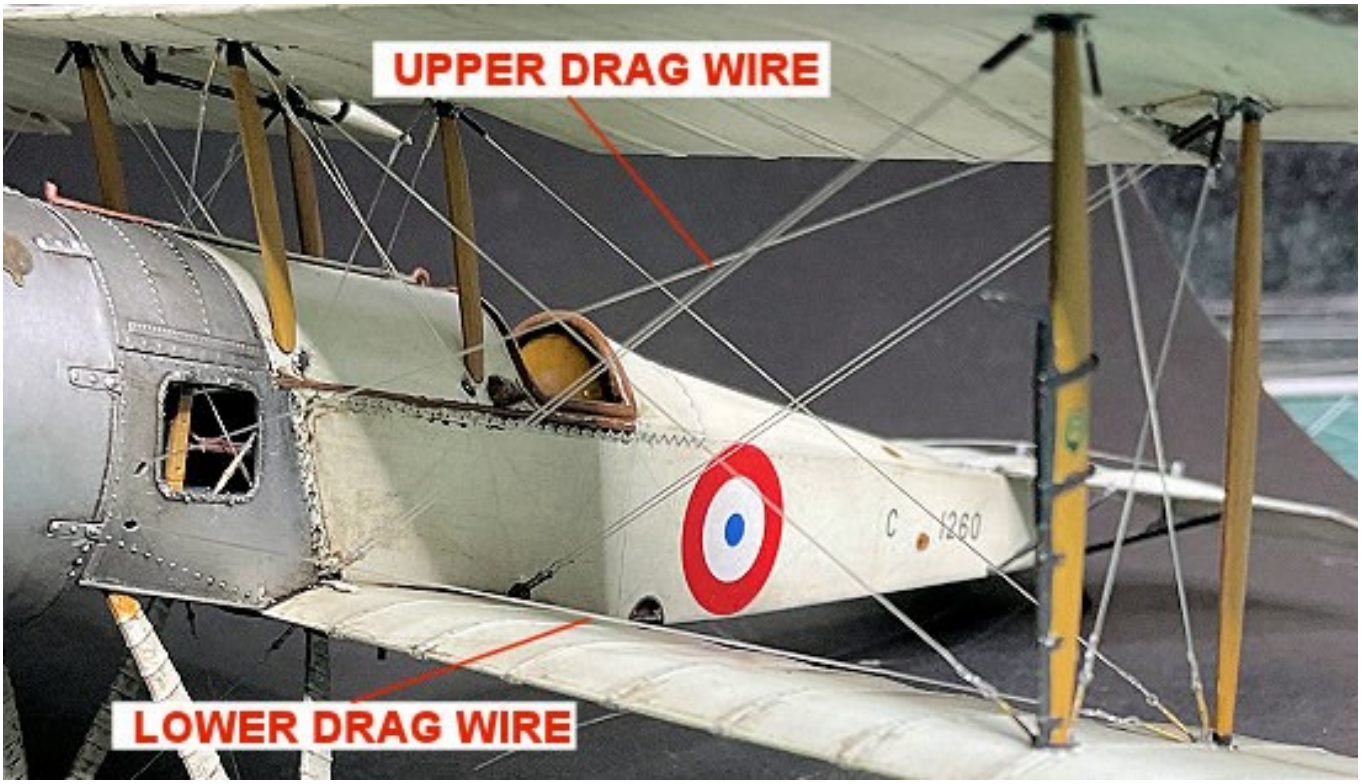
Pass the free end of the pre-rigged lower drag wire (from the top surface of the lower wing) diagonally across and through the lower hole in the side of the fuselage forward side panel.

Pull the end of the line out through the open access panel.

Keeping both lines taut, secure them to the edge of the open access panel, using thin CA adhesive.

Cut away any residual tags of line at the edge of the open access panel.

Repeat the procedures to attach the upper and lower drag wires on the other side of the aircraft.



Upper elevator control cables:

Pass a free end of a pre-rigged elevator control line (Type C turnbuckle) through an upper elevator control cable opening in the top, rear of the fuselage.

Secure the line in the opening using thin CA adhesive.

Pass the other free end of the pre-rigged elevator control line through a blackened 0.4 mm Brass tube, such as ‘Albion Alloy’s’ MBT04 or similar.

Pass the line through the pre-drilled hole in the top of a fitted elevator control horn.

Loop the line back and through the tube.

Keeping the line taut, slide the tube up to the control horn.

Secure the tube to the line using thin CA adhesive.

Once the adhesive has set, cut away any residual tag of line at the end of the tube.

Repeat the procedure to attach the opposite elevator upper control line.

Lower elevator control cables:

Pass an end of a length of 0.08 mm diameter mono-filament through a lower elevator control cable opening in the rear, side of the fuselage.

Secure the line in the opening thin CA adhesive.

Pass the other end of the line through a blackened 0.4 mm Brass tube, such as ‘Albion Alloy’s’ MBT04 or similar.

Pass the line through the pre-drilled hole in the bottom of a fitted elevator control horn.

Loop the line back and through the tube.

Keeping the line taut, slide the tube up to the control horn.

Secure the tube to the line using thin CA adhesive.

Once the adhesive has set, cut away any residual tag of line at the end of the tube.

Repeat the procedure to attach the opposite elevator lower control line.

Under fuselage control horn:

Pass an end of a length of 0.08 mm diameter mono-filament through a the pre-drilled hole in the elevator control horn (protruding through the underside of the cockpit).

Slide a blackened 0.4 mm Brass tube, such as ‘Albion Alloy’s’ MBT04 or similar, onto both ends of the line and close to the control horn.

Secure the tubes to the line using thin CA adhesive.

Pass both lines rearwards and into their respective opening in the fuselage underside.

Pass the ends of the lines across the inside of the fuselage the out through the opposite opening.

Keeping both lines taut, secure the lines to the edge of the openings using thin CA adhesive.

Cut away any residual line from the edges of the openings.

Aileron control cables:

Cement the pre-rigged upper aileron control horns into their recesses in the top of the upper ailerons.

Cement the pre-rigged lower aileron control horns into their recesses in the underside of the lower ailerons.

Trim the pre-rigged forward line (end of control horns) such that they can be inserted into the pre-drilled holes at the rear of the wing inspection panels.

Keeping the lines taut, secure them into their locating holes using thin CA adhesive.

Pass the two lines on the upper aileron control horns rearwards and down through their pre-drilled holes in the upper ailerons.

Route the lines down and through their respective holes in the lower ailerons.

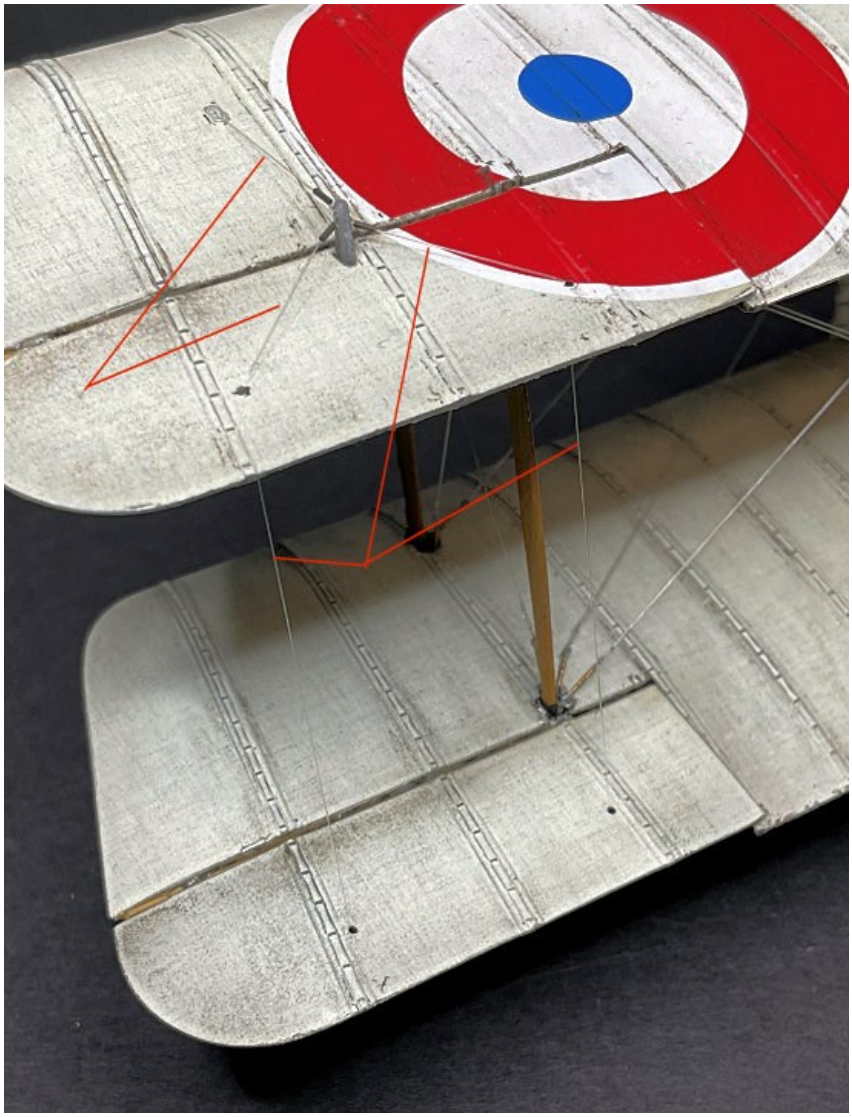
Slide a blackened 0.4 mm Brass tube, such as ‘Albion Alloy’s’ MBT04 or similar, onto the ends of the lines

Pass the ends of the pre-drilled hole at the rear of the lower aileron control horns.

Keeping the lines taut, secure them in the holes using thin CA adhesive.

Cut away any residual tags of line at the control horns.

Slide the tubes up to the control horns and secure them to the lines, using thin CA adhesive.



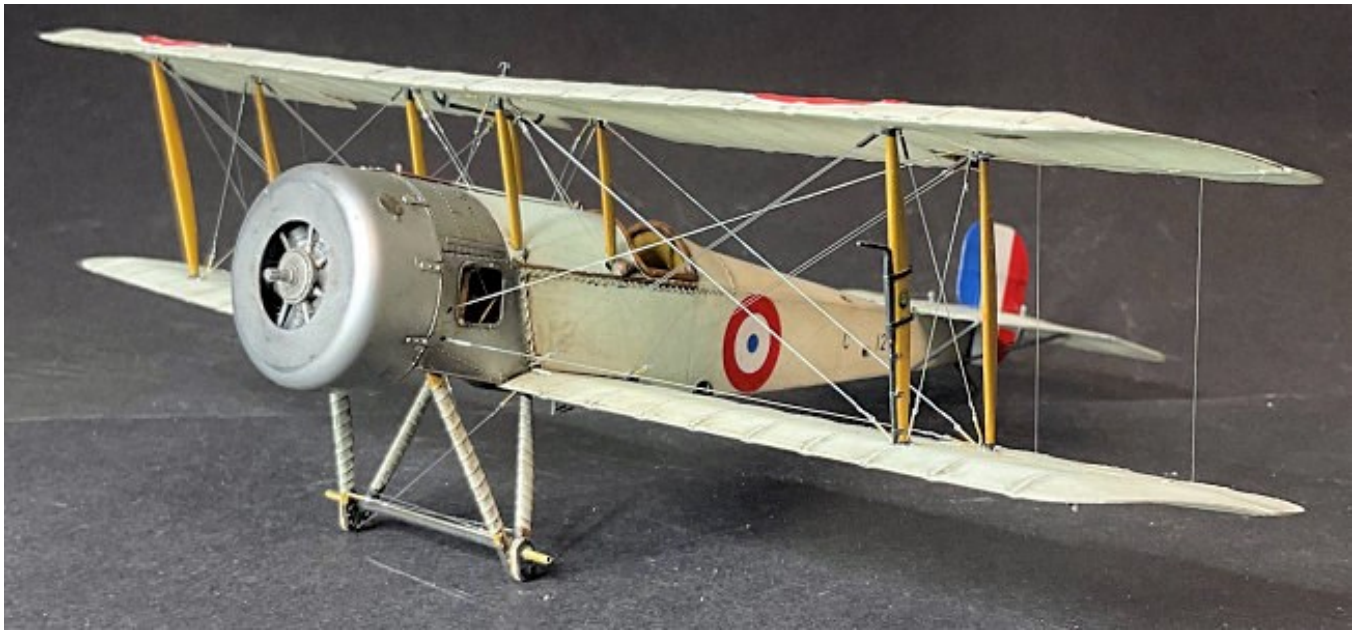
Assembly (continued):

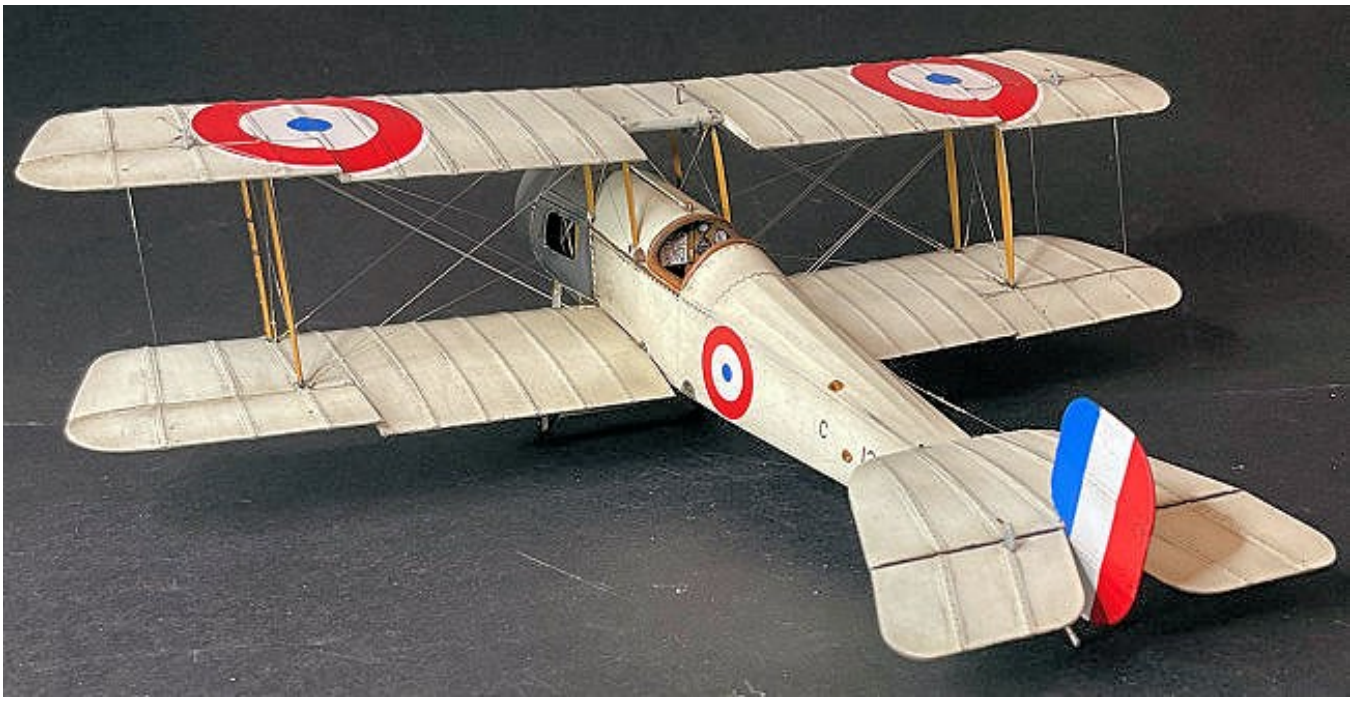
Cement the rudder into its locating slot in the rear of the fuselage.

Final rigging (continued):

Pass the two rudder control lines under the tailplane struts and into their control openings in the rear, sides of the fuselage.

Keeping the lines taut, secure them into their openings, using thin CA adhesive.





Painting (continued):

Brush paint the aileron, elevator and rudder control horns with ‘Tamiya’ Rubber Black (XF85) or similar.

Assembly (continued):

Access panels:

NOTE: *The two access panels were created earlier in this build log. Refer to the following photographs for guidance.*

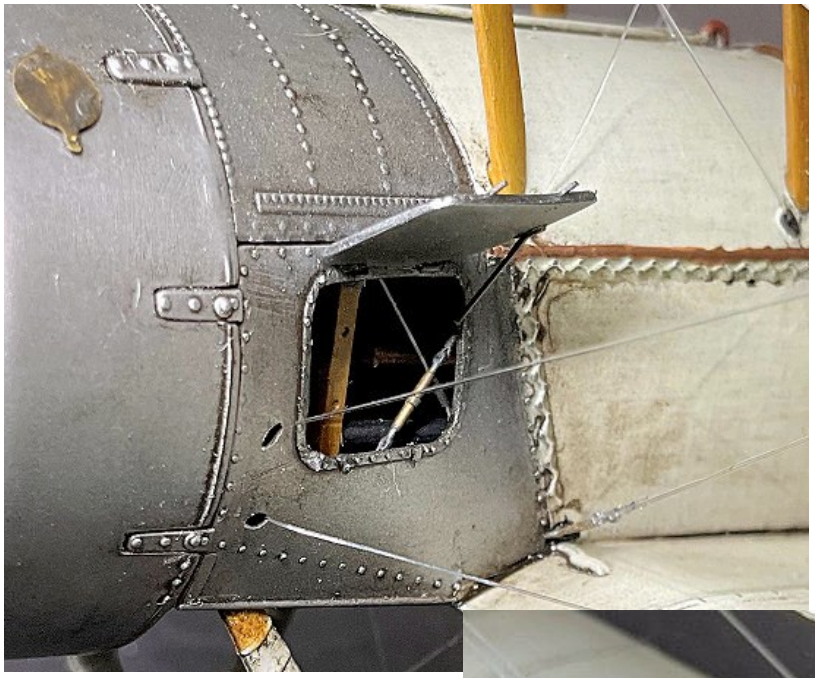
Secure the panels onto the fuselage panels (above the panel opening, using CA adhesive. The panels should be angled slightly up.

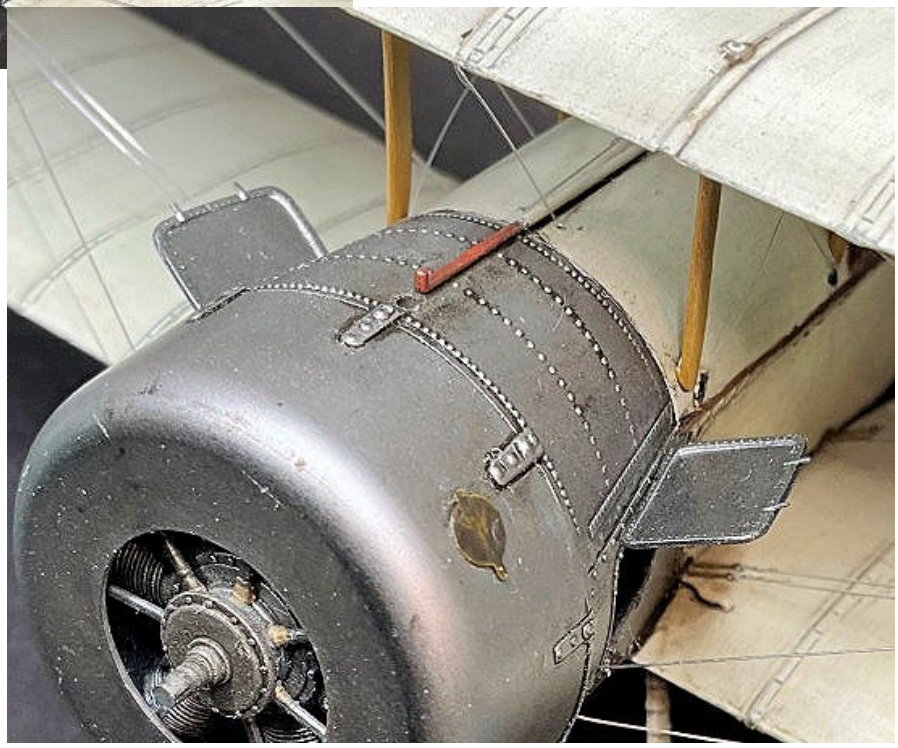
Cut two short lengths of blackened 0.3 .mm diameter Brass tube, such as ‘Albion Alloy’s’ MBT03 or similar.

Using flat nose pliers, flatten one end of the tubes and at a slight angle.

Using CA adhesive, secure the flattened end of the tubes onto the rear edge of the fitted panels and midway along the edge.

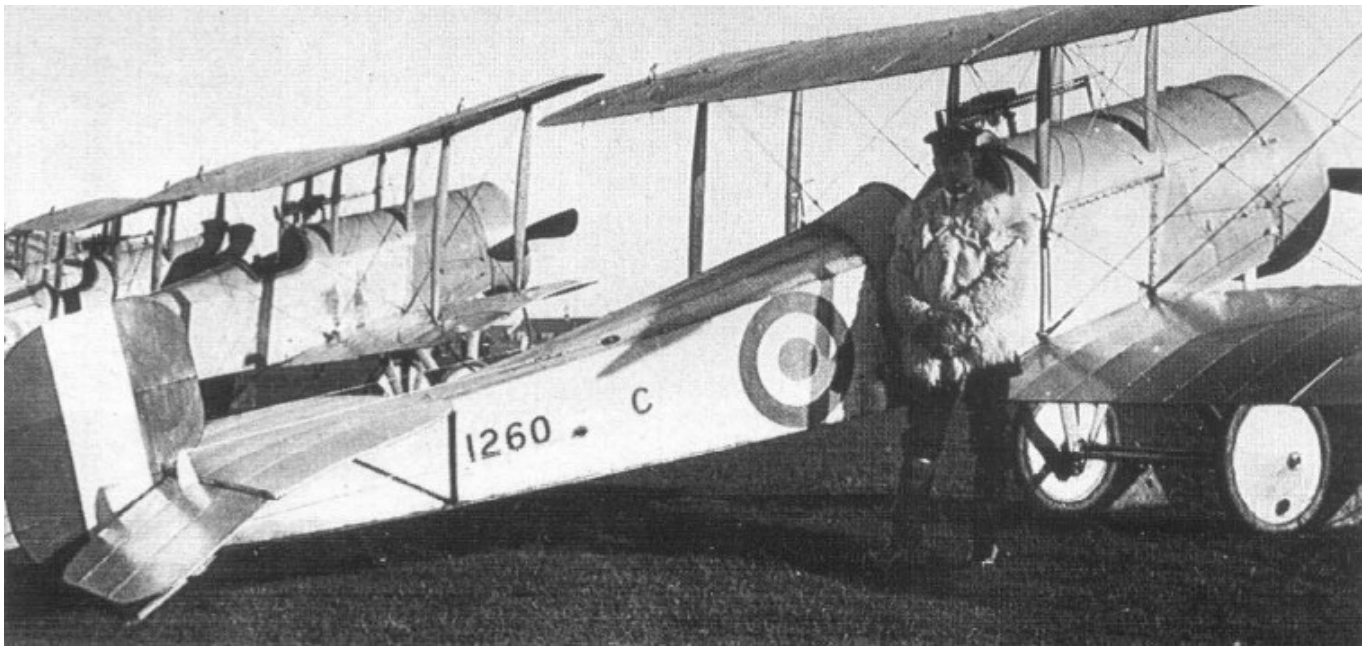
Using CA adhesive, secure the other end of the tubes onto the rear edge of the panel openings and approximately one third the way down from the top of the opening.





Windscreen:

NOTE: *This particular Bristol Scout (1260) did have a windscreen fitted when it had the Lewis machine gun located on the decking panel in front of the cockpit .*



However this model build of 1260 is based on when the Lewis machine gun was mounted above the centre section of the upper wing and in the following photograph, it seems no windscreen was fitted. What can be seen in front of the cockpit is, I believe, the mounting for holding the weapon when it was pulled down vertically for reloading.

Therefore, I chose to not fit the kit supplied windscreen.

Lewis machine gun:

Locate the previously prepared Lewis machine gun onto the rod on the created gun mounting.

Locate the barrel of the machine gun into the curved top of the fitted over wing retainer mounting.

Using thin CA adhesive, secure the barrel of the machine gun into the curved top of the fitted over wing retainer mounting.

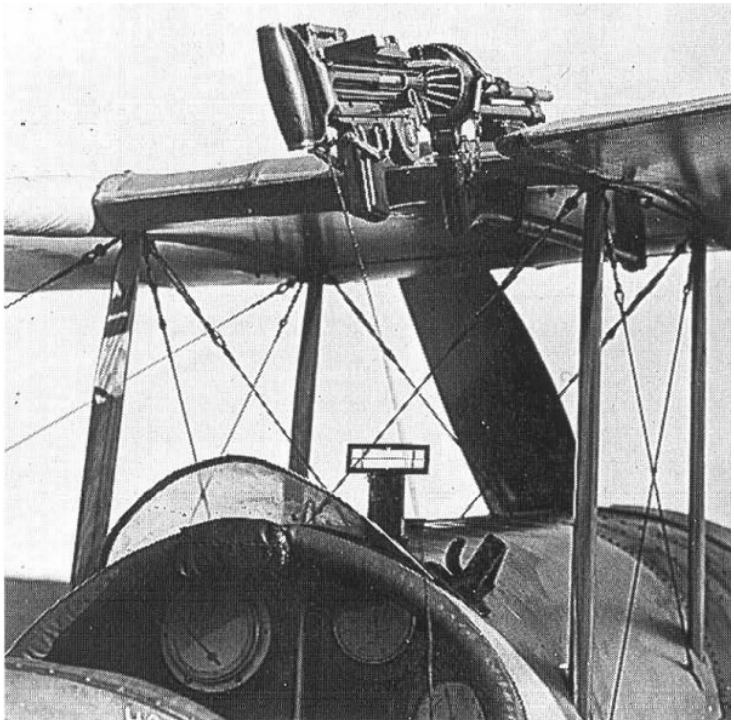
Fuselage gun latch:

Brush paint the previously created gun latch with ‘Tamiya’ Rubber Black (XF85) or similar.

Using thin CA adhesive, secure the gun latch onto the fuselage decking panel and aligned with the grab handle of the fitted Lewis machine gun. The latch should be positioned on the decking panel where the grab handle would be if the machine gun was pulled down vertically from the upper wing.

Gun sight:

NOTE: *Photographs of Bristol Scout aircraft fitted with an over wing Lewis machine gun often show a rectangular gun site mounted on the fuselage decking panel, forward from the cockpit.*



Remove the kit supplied photo-etch gun sight (PE4) and foresight (PE6) from the sheet.

Cut away the stem from the edge of the sight (PE4).

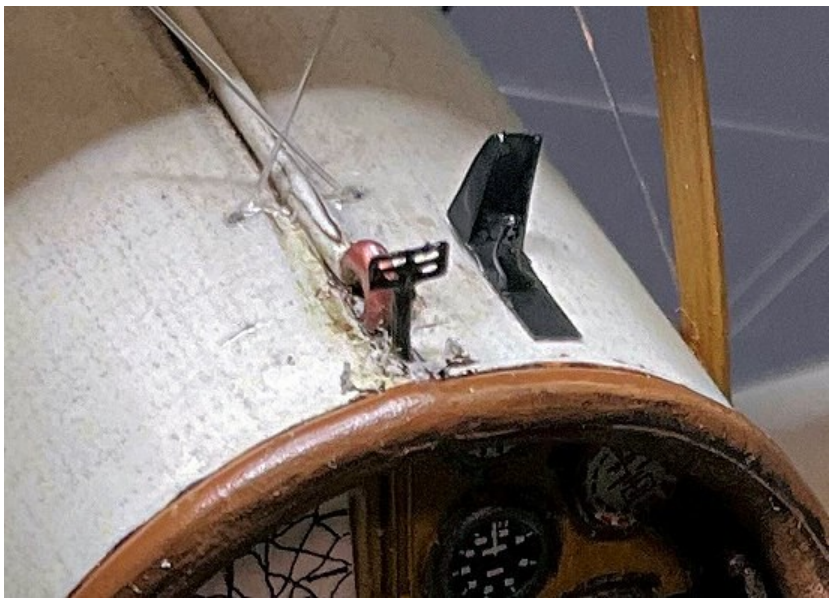
Secure the foresight (PE6) to the bottom, centre of the gun sight (PE4), using thin CA adhesive.

Brush paint the created gun sight assembly with ‘Tamiya’ Rubber Black (XF85) or similar.

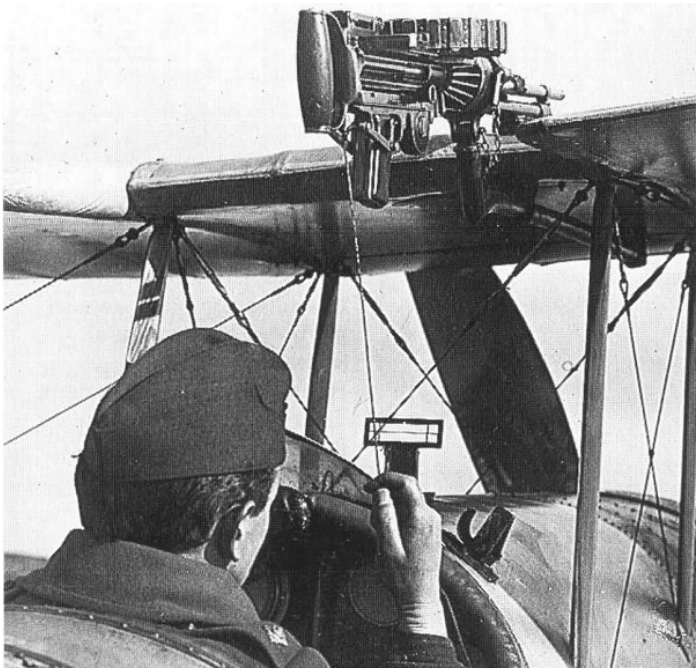
Drill a hole of 0.5 mm diameter vertically through the fuselage decking panel, just at the rear of the loop of the fuel gauge supply pipe.

NOTE: *In the following step, make sure the rectangular sight is above the loop of the fuel gauge supply pipe.*

Secure the gun sight assembly into the pre-drilled hole, using thin CA adhesive.



Gun trigger cable:



Cut a length of 0.2 mm diameter lead wire, such as that from ‘PlusModels’ or similar.

Loop one end of the wire around a 1.0 mm diameter drill to form the grip loop.

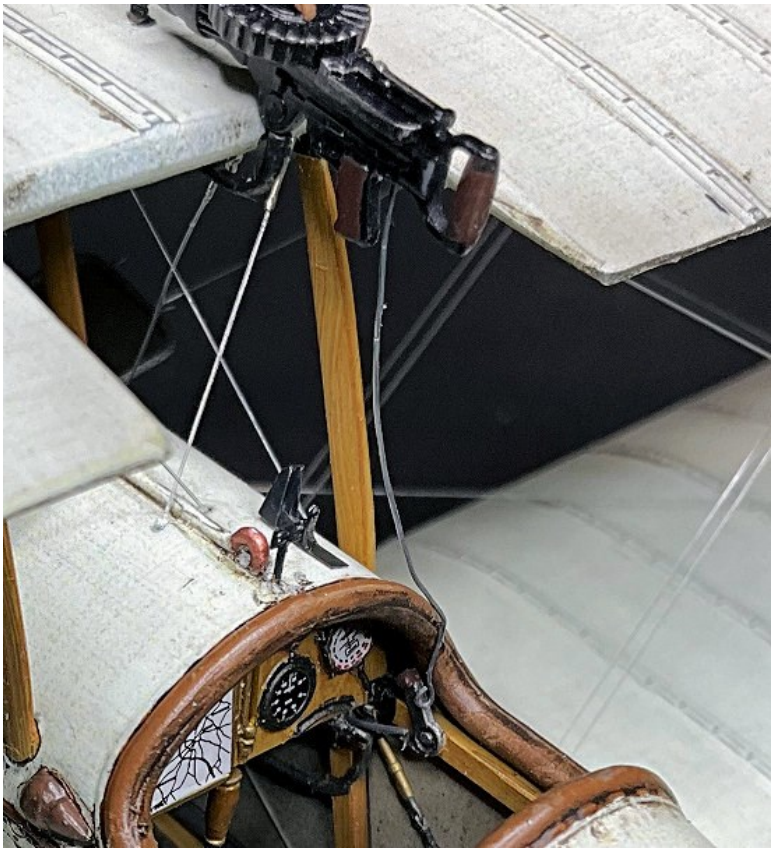
Trim the length of the wire such that it can be attached to the breech block of the machine gun with the grip loop hanging down inside the edge of the cockpit.

Bend the end of the wire to attach it to the gun breech block.

Secure the bent end of the wire to the gun breech block, using thin CA adhesive.

Secure the lower portion of the wire to the cockpit surround padding, using thin CA adhesive.

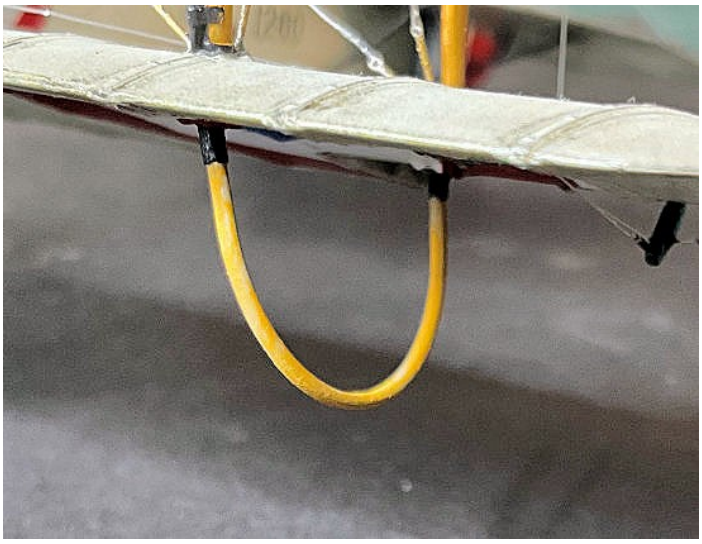
Carefully flex the wire to form a slight bow between the gun and the cockpit.



Wing hoops:

Make sure any decal and paint is removed from the hoop locating recesses on the underside of the lower wings and the locating ends of the wing hoops.

Cement the two wing hoops into their locating recesses, making sure the hoops are angled slightly out towards the wing tips.



Wheels:

NOTE: *The kit axle has been replaced with a Brass tube. Normally CA adhesive would be used to secure the plastic to Brass tube. However, this adhesive will set too quickly before the wheels have been fully inserted on the Brass axle. Therefore only styrene cement was used.*

Apply cement to the exposed Brass tube axle ends.

Slide the wheels fully onto the axle ends and against the axle suspension units.

Allow the cement to weld the wheels to the Brass axle.

If necessary and for further security, thin CA adhesive can be applied between the suspension units and rear of the wheels.

Fuel funnel:

Stand the mechanic figure on the top of the trestle then place the fuel funnel into the pre-drilled hole in the top of the fuselage.

Secure the fuel funnel into the hole, making sure its angled towards the fuel can in the mechanics hands.

Remove the mechanic and the trestle.

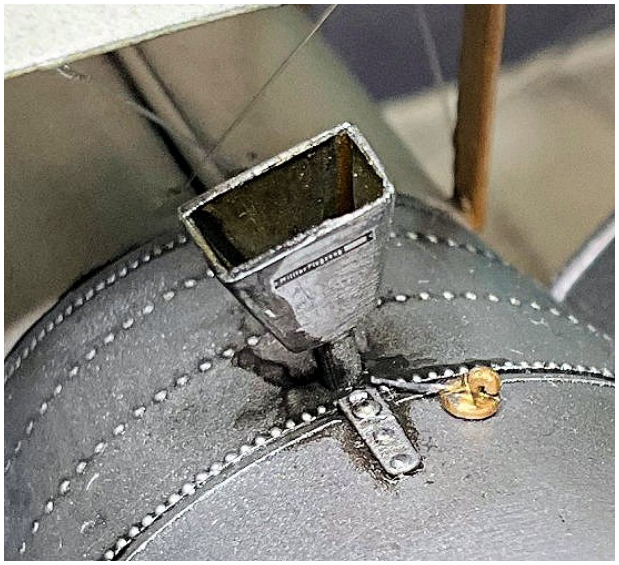
Brush ‘AK Interactive’ Kerosene wash into the funnel and sparingly down the funnel and around the filler opening in the fuselage.

Fuel cap:

Trim the length of the attached lead wire to approximately 6 mm.

Secure the fuel cap onto the top of the engine cowl, using thin CA adhesive. Make sure the lead wire reaches the fuel filler opening.

Press the lead wire slightly to conform it to the contour of the engine cowl/fuselage.



Starter switch:

To represent the switch on the added starter switch mounting on the fuselage left side, outside of the cockpit, apply a small amount of ‘Mr. Colour’ Brass (219) or similar.

Propeller:

Stand the mechanic figure on the top of the trestle and position the mechanic as before over the fuel funnel.

Secure the propeller onto the engine shaft, making sure it clears the mechanic and trestle.

Remove the mechanic and the trestle.

Weathering (continued):

Refer to Part 3 (Weathering) of this build log - apply ‘Flory Models’ clay wash (Grime) as staining on the forward fuselage sides, along the bottom edges of the fuselage, around the wheels and as wheel dirt spray on the underside of the lower wings.

Finally seal the weathering and all of the fitted rigging with a semi-matte clear coat, such as ‘Alclad’ Light Sheen (ALC311) or similar.

PART 15
DISPLAY BASE

PART 15 - DISPLAY BASE

The display case is made from two sheets of 3mm thick Piano Black Acrylic sheet cemented together with a transparent top fabricated from 3mm thick Clear Acrylic sheet. This was custom made for me by Paul Moss at 'Inperspextive' (Ebay). The name plaque was also made by an on -line retailer 'The Engraving Shop'. The grass mat was cut to shape from a sheet 'Polak' Wild Meadow (Variation F) mat (4706).

The cut mat with its plastic backing sheet removed, was then positioned on the base and the model and figure test placed to achieve the best effect and to make sure the transparent cover of the case would be able to be located without touching the model. The model and figure were then removed with the grass mat left in position on the display base. The edges of the grass mat were then carefully lifted and a soft marker pen was used to mark the outline of the grass mat, but approximately 5mm inside the mat edge. The grass mat was then removed and the area of the display base inside the marks was scuffed using a coarse grit sand paper, in order to give a key for the adhesive.

NOTE: *When applying the adhesive, make sure it is not applied too thickly and close to the edges of the finally positioned grass mat. Otherwise the adhesive may be squeezed out from under the grass mat once weight is applied to hold down the mat during setting of the adhesive.*

A coat of PVA adhesive (white glue) was applied to the scuffed area on the display base and to the back of the grass mat. The grass mat was then laid onto the PVA adhesive and positioned correctly. Light pressure was applied to ensure the mat was in contact with the adhesive.

Finally an acrylic plaque stand was positioned to the left, front corner of the display base (just in from the edges of the shoulder for locating the transparent acrylic cover. The area on the underside of the stand and its contact are on the display base were scuffed using a coarse grit sand paper, in order to give a key for the adhesive. A thin coat of contact adhesive was then applied to both scuffed areas and once the adhesive started to set, the stand was carefully position onto the display bae and pressed down to make full contact. The self-adhesive backed information plaque was the positioned onto the stand and pressed to make full contact.

The model and figures were then positioned on the base in their final positions and the support pin for the pilot figure marked into the grass mat. A hole of 1.0mm diameter was then drilled through the grass mat and into, but not through, the base. The hole was cleared of residual acrylic to ensure the pin in the figure would fully locate. The figure was then test fitted and where necessary, the support pin for the figure was snipped to the required length to fully locate into the display base.

NOTE: *The aircraft model is not secured to the display base as this can cause shock damage to the model if the display is transported to shows etc. For that the aircraft model would be packed separately for transporting.*

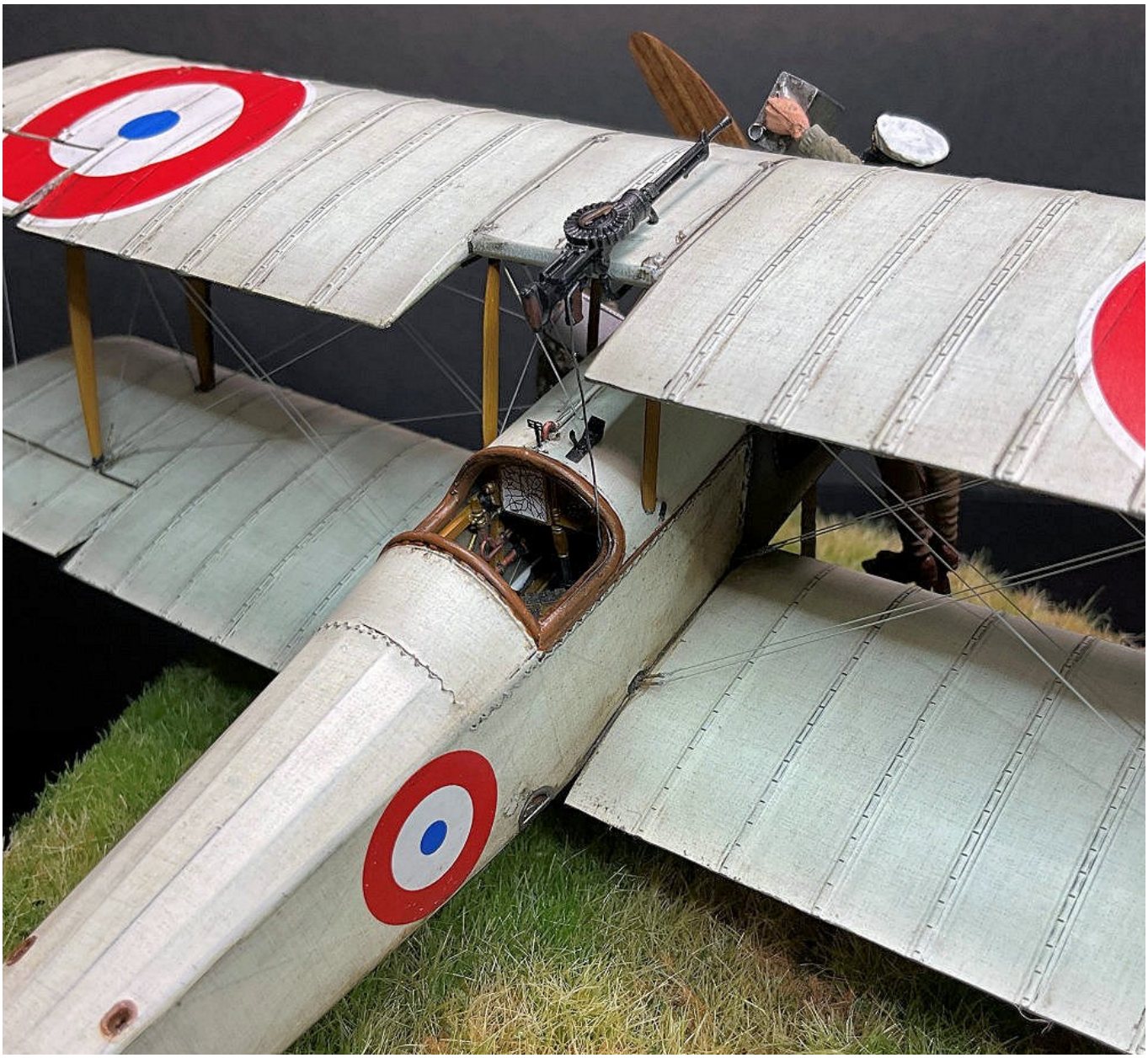
Thin CA adhesive or PVA adhesive was then applied to the support pin of the pilot figure, which was then located, in the desired position, into the pre-drilled location hole. The mechanic figure was secured in position standing on the trestle, using thin CA adhesive. The aircraft itself, being light in weight, will tend to sit on top of the grass on the mat, rather than seat fully down, as would a real aircraft. Therefore the location of the aircraft wheels and tail skid were marked onto the grass mat and those areas scrapped through the mat to create slight and unobstructed troughs, into which the aircraft could be located. The mechanics trestle was similarly secured to the display base.

PART 16
COMPLETED MODEL PHOTOGRAPHS


C 1260


C 126


1260 C



END