

Radio control model / Flugmodell

# FOKKER DR1

1850mm Wingspan



ALL Balsa, PLYWOOD CONSTRUCTION AND ALMOST READY TO FLY

## Instruction manual / Montageanleitung

### SPECIFICATIONS

Wingspan:.....1850mm  
Length ..... 1420mm  
Diameter of cowl: 230mm, Length: 120mm  
Electric Motor:.....Boost 100 (460KV)  
Glow Engine:.....4T: 140  
Gas Engine:.....2T: 25cc / 4T: 30cc  
RTF Weight: 7.5 - 7.8kg (will vary with  
equipment use).  
Radio:.....6 Channels / 6 Servos  
Function: Aileron-Elevator-Rudder-Throttle.

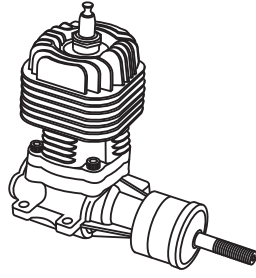
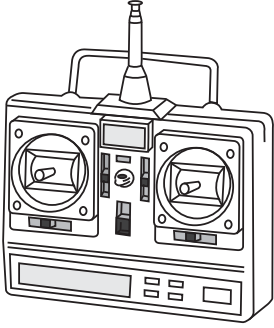


**WARNING!** This radio controlled model is NOT a toy. If modified or flown carelessly it could go out of control and cause serious human injury or property damage. Before flying your airplane, ensure the air field is spacious enough. Always fly it outdoors in safe areas and seek professional advice if you are unexperienced.

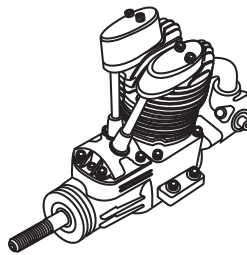
**ACHTUNG!** Dieses ferngesteuerte Modell ist KEIN Spielzeug! Es ist für fortgeschrittene Modellflugpiloten bestimmt, die ausreichende Erfahrung im Umgang mit derartigen Modellen besitzen. Bei unsachgemäßer Verwendung kann hoher Personen- und/oder Sachschaden entstehen. Fragen Sie in einem Modellbauverein in Ihrer Nähe um professionelle Unterstützung, wenn Sie Hilfe im Bau und Betrieb benötigen. Der Zusammenbau dieses Modells ist durch die vielen Abbildungen selbsterklärend und ist für fortgeschrittene, erfahrene Modellbauer bestimmt.

# REQUIRED FOR OPERATION (Purchase separately)

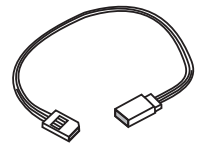
Radio minimum 6 channels



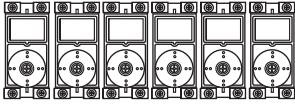
2T gas engine: 25cc



4T gas engine: 30cc



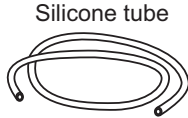
Aileron: 50cmx2 pcs  
Aileron: 20cmx2 pcs  
Rx battery pack: 30cmx1 pcs



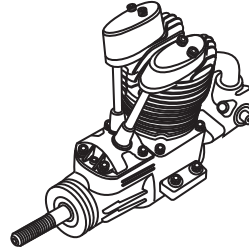
6 Standard servos

Elevator : 2 standard servo  
Rudder: 1 standard servo  
Aileron: 2 standard servo  
Throttle: 1 standard servo (for glow engine only)  
Recommended servo: Hitec HS-425BB

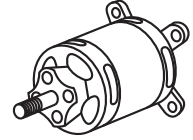
Recommended engine:  
2T: Zenoah 26cc  
4T: Saito FG-33R3



Silicone tube



4T glow engine: 140

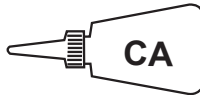


Electric motor recommended:  
BOOST 100 (460KV)

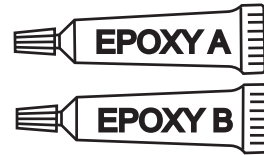
## GLUE (Purchase separately)



Silicon sealer



Cyanoacrylate Glue (thin type)



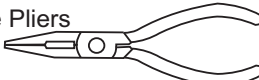
Epoxy Glue  
(30 minute type)

## TOLLS REQUIRED (Purchase separately)

Hobby knife 


Phillip screw driver 

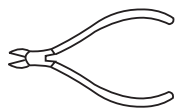
Hex Wrench 

Needle nose Pliers 

Scissors 

Awl 

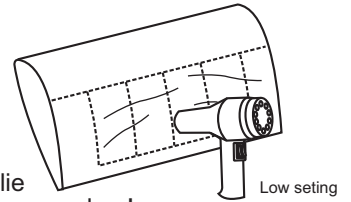
Sander 

Wire Cutters 


Masking tape - Straight Edged Ruler - Pen or pencil - Drill and Assorted Drill Bits


If exposed to direct sunlight and/or heat, wrinkles can appear. Storing the model in a cool place will let the wrinkles disappear. Otherwise, remove wrinkles in covering film with a hair dryer, starting with low temperature. You can fix the corners by using a hot iron.


Bei Sonneneinstrahlung und/oder Wärme kann die Folie erschlaffen bzw. Falten entstehen. Verwenden Sie ein Warmluftgebläse (Haartrockner) um evtl. Falten aus der Folie zu bekommen. Die Kanten können Sie mit einem Bügeleisen behandeln. Nicht zuviel Hitze anwenden!





Symbols used throughout this instruction manual, comprise:


 Drill holes using the stated size of drill (in this case 1.5 mm)


 Take particular care here


 Hatched-in areas: remove covering film carefully

 Check during assembly that these parts move freely, without binding

 Use epoxy glue

 Apply cyano glue


 Assemble left and right sides the same way.

 Not included. These parts must be purchased separately

 Löcher bohren mit dem angegebenen Bohrer (hier 1,5 mm)


 Hier besonders aufpassen

 Schraffierte Stellen, Bespannfolie vorsichtig entfernen

 Während des Zusammenbaus immer prüfen, ob sich die Teile auch reibungslos bewegen lassen

 Epoxy-Klebstoff verwenden

 Sekundenkleber auftragen

 Linke und rechte Seite wird gleichermaßen zusammengebaut

 Nicht enthalten. Teile müssen separat gekauft werden.

Read through the manual before you begin, so you will have an overall idea of what to do.

## CONVERSION TABLE

1.0mm = 3/64"	3.0mm = 1/8"	10mm = 13/32"	25mm = 1"
1.5mm = 1/16"	4.0mm = 5/32"	12mm = 15/32"	30mm = 1-3/16"
2.0mm = 5/64"	5.0mm = 13/64"	15mm = 19/32"	45mm = 1-51/64"
2.5mm = 3/32"	6.0mm = 15/64"	20mm = 51/64"	

# FOKKER Dr 1 HISTORY

The Fokker Dr.1 (Dreidecker, "triplane" in Germany), often known simply as the Fokker Triplane, was a World War I fighter aircraft built by Fokker-Flugzeugwerke. The Dr.I saw widespread service in the spring of 1918. It became famous as the aircraft in which Manfred von Richthofen gained his last 17 victories (plus two earlier ones in the Fokker F.I prototype in September 1917), and in which he was killed on 21 April 1918.

## SAFETY NOTES BEFORE ASSEMBLING

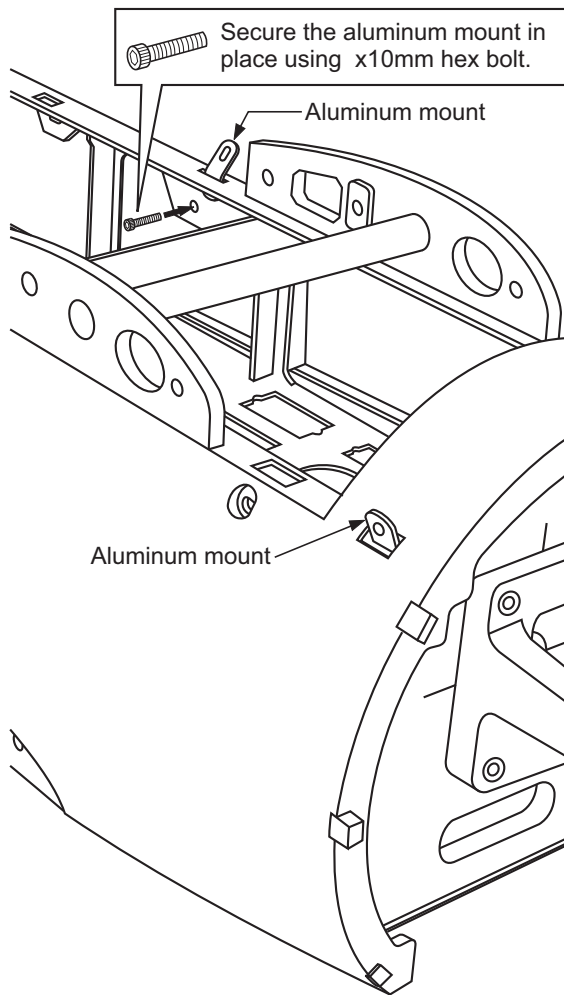
**This model is highly pre-fabricated and can be built in a very short time. However, the work which you have to carry out is important and must be done carefully.**

**The model will only be strong and fly well if you complete your tasks competently - so please work slowly, accurately and check every joints, maybe apply more glue to be safe.**

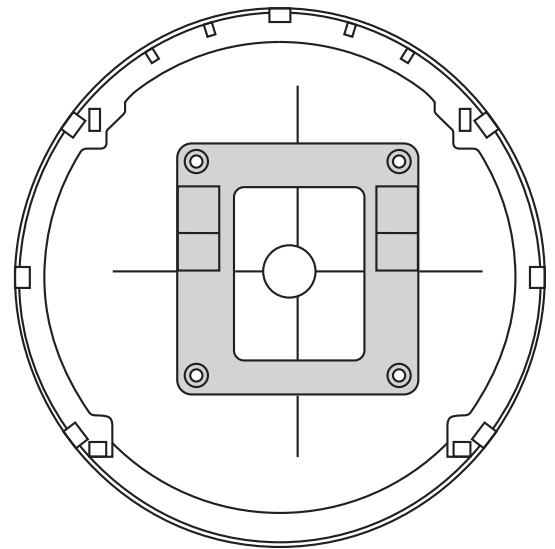
**Read through the manual before you begin, so you will have an overall idea of what to do.**

**IMPORTANT:** Please do not clean your model with pure alcohol or strong solvents, only use liquid soap with water or use glass cleaner to clean on surface of your model to keep the colour not fade.

# FOKKER DR1 1- Engine mount



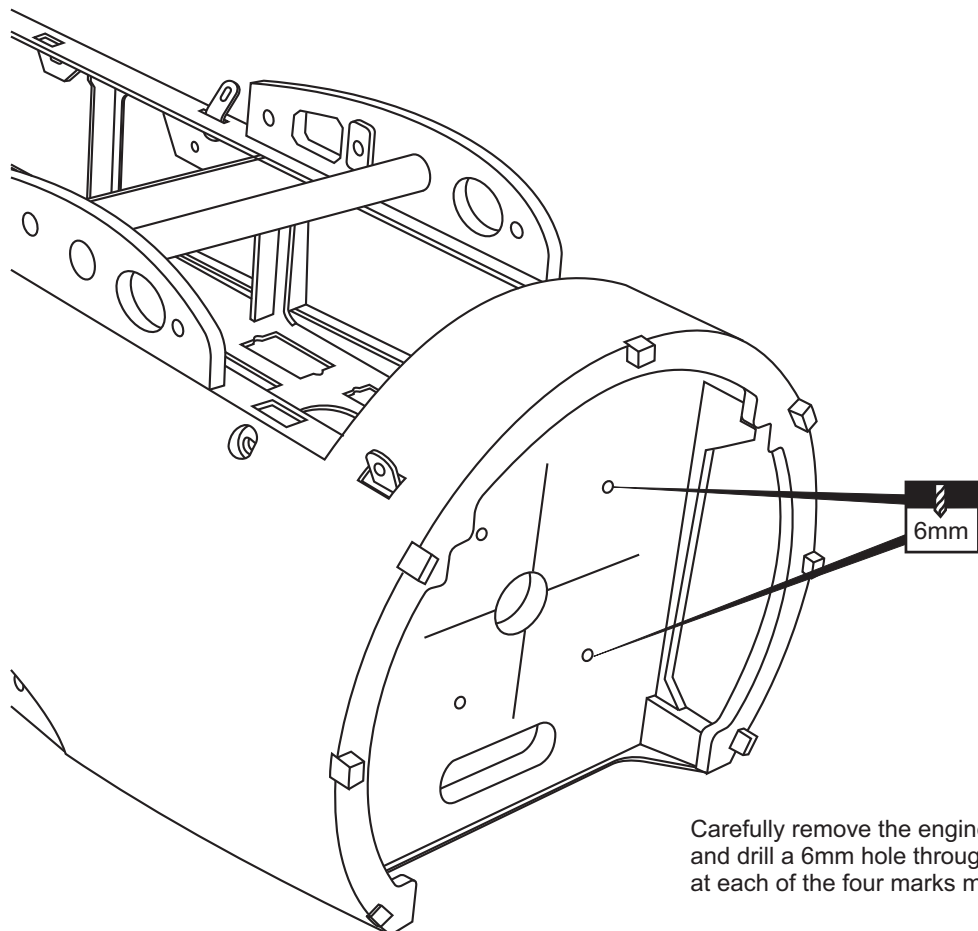
This drawing shows the engine mount with the engine facing down.



**Note:** In case of using Saito FG-30 gas engine, The engine mount will be included in the box

For other engine brands we are not sure if engine mount included with the engine or not

Using a pencil or felt tipped pen, mark the fire wall where the four holes are to be drilled.



Carefully remove the engine mount and drill a 6mm hole through the fire-wall at each of the four marks made above.

# FOKKER DR1 2- Engine mount

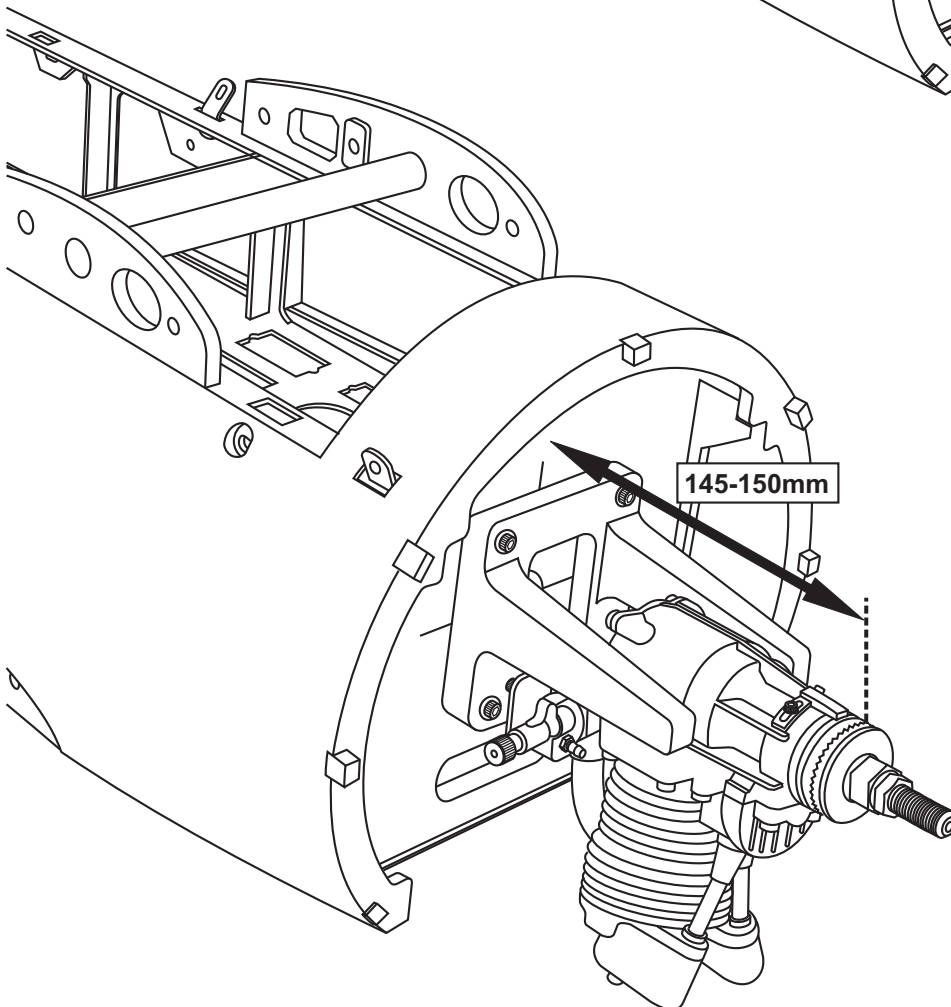
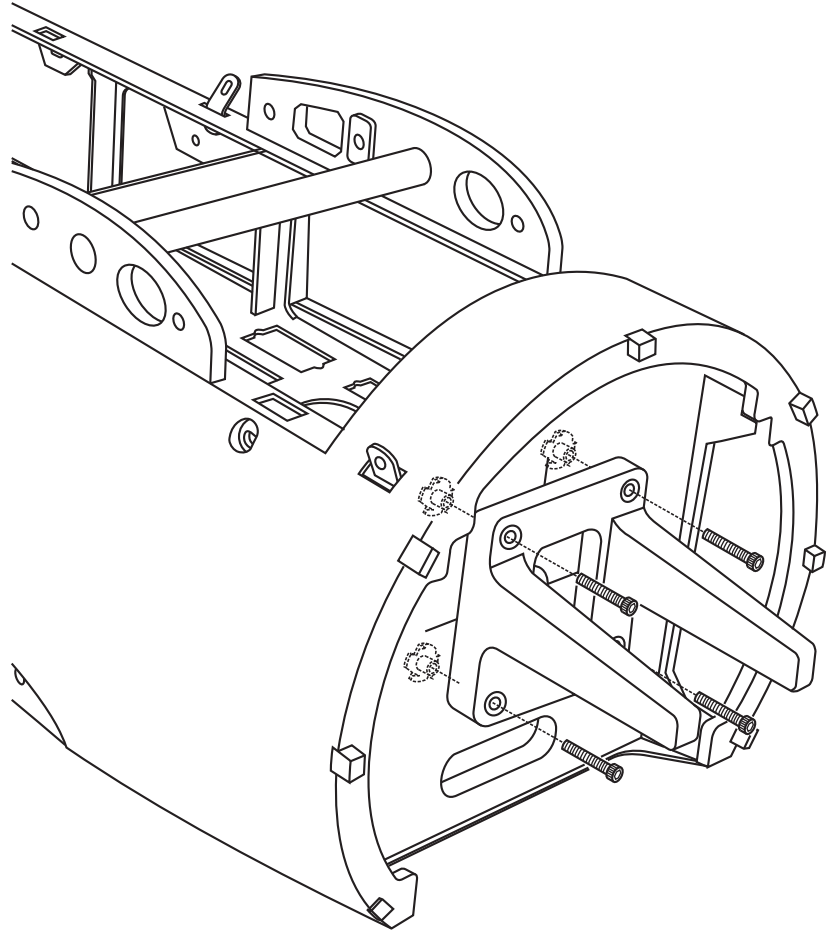
Insert the blind-nut onto each of the four holes make above.

Reposition the engine mount on to the fire-wall and secure them with four 4x25mm hexagonal bolts.

4x25mm hexagonal bolt - washer



Blind-nut



Position the engine to the engine mounts so the distance from the prop hub to the fire-wall from 145-150mm. Mark the engine mount beams where the four holes are to be drilled.

Remove the engine and drill a 4mm holes through the beam at each of the four marks made above.

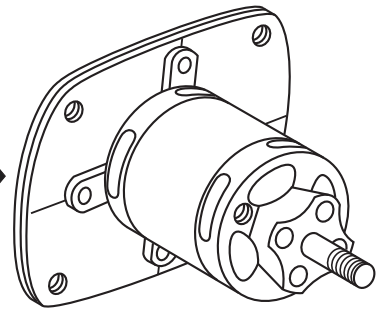
Marking sure that you drill the hole perpendicular to the beam of the engine mount.

Reposition the engine on the engine mount beams, aligning it with the holes. Secure the engine to the engine mount using four 4x25mm hexagonal bolts (not included).

Note: Apply Silicon sealer to each of the 4x25mm bolt and nut.

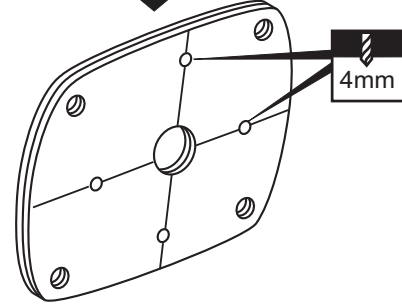
# FOKKER DR1 3- Electric motor mount

Using a aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled. →



! Align the mark on wooden motor mounting plate with the mark on the fire-wall.

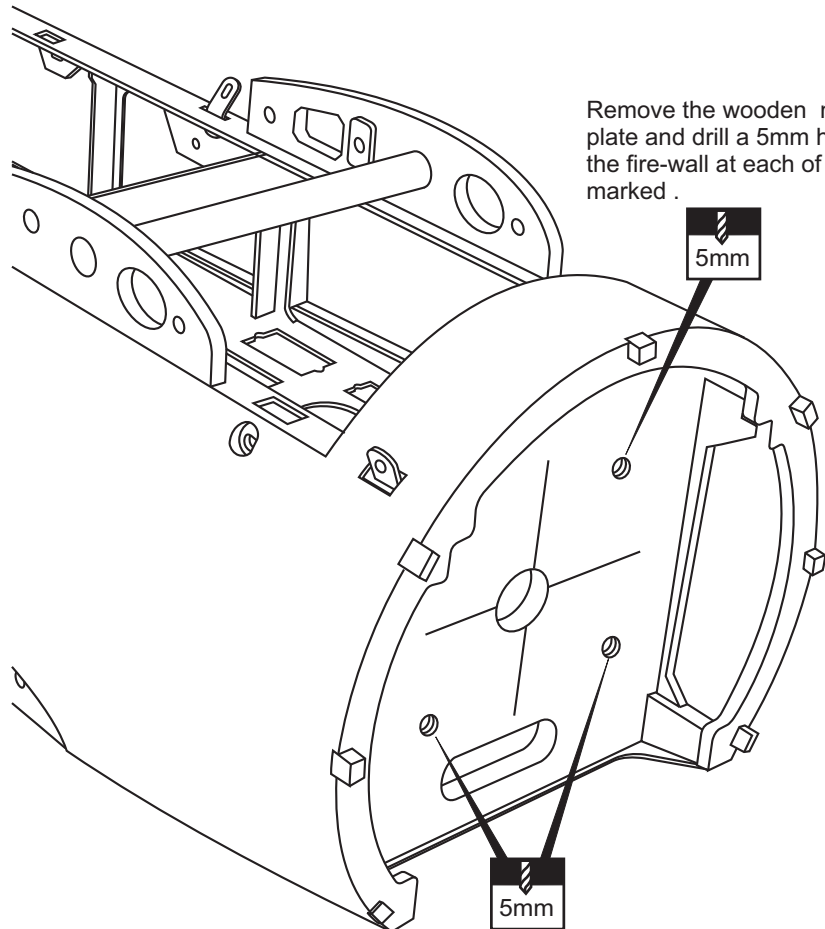
Remove the aluminum motor mounting plate and drill a 4mm hole through the plywood at each of the four marks marked



! Align the mark on wooden motor mounting plate with the mark on the fire-wall.

Using a wooden motor mounting plate as a template, mark the fire-wall where the four holes are to be drilled.

Remove the wooden motor mounting plate and drill a 5mm hole through the fire-wall at each of the four marks marked .



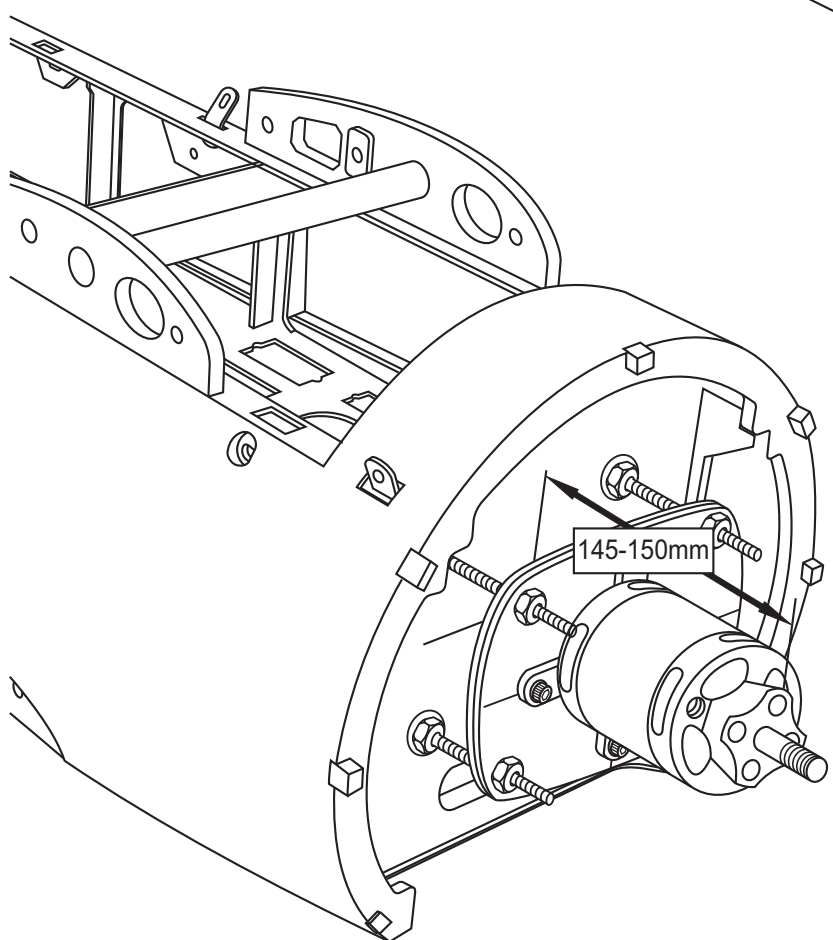
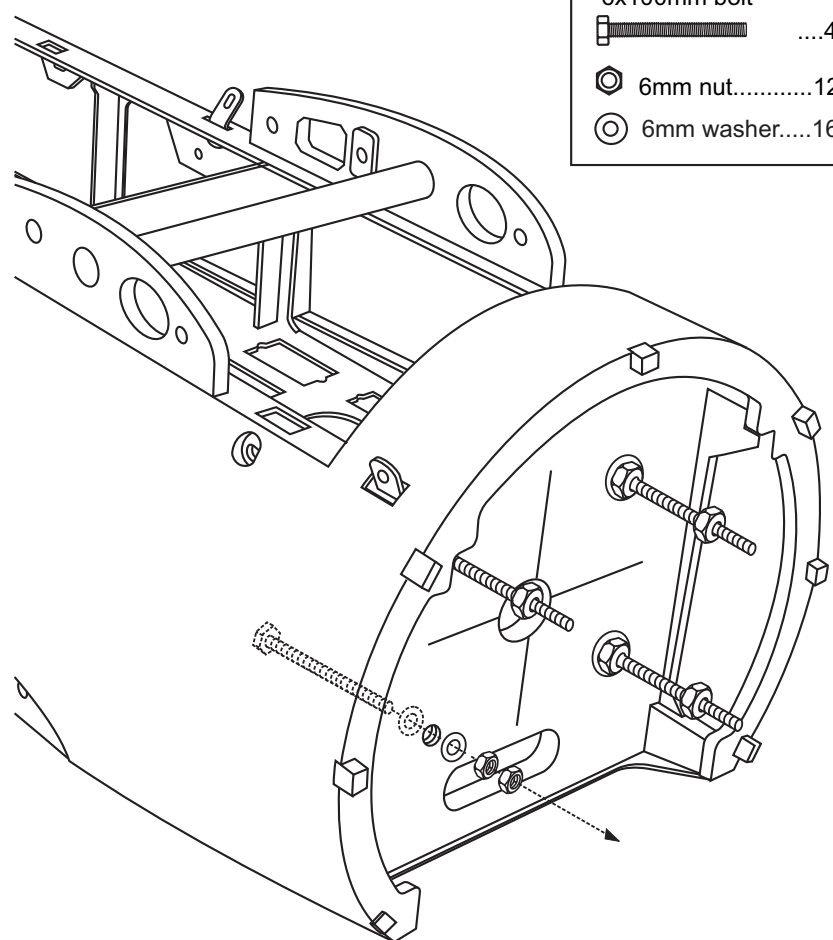
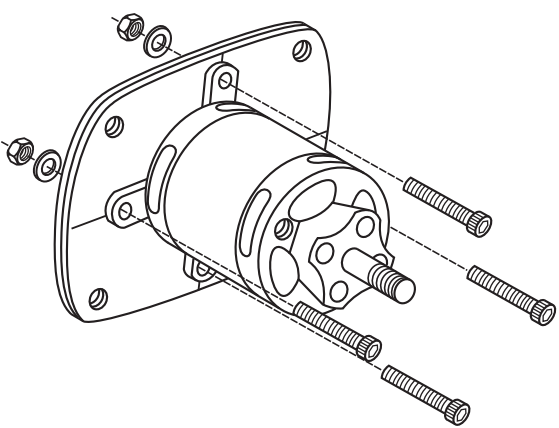
# FOKKER DR1 4- Electric motor

Attach the four 6x100mm bolts and nuts to the fire-wall as shown.

- |                   |        |
|-------------------|--------|
| 6x100mm bolt      | .....4 |
| 6mm nut.....12    |        |
| 6mm washer.....16 |        |

Secure the Motor to the wooden motor mounting plate using the four 4mm bolts.

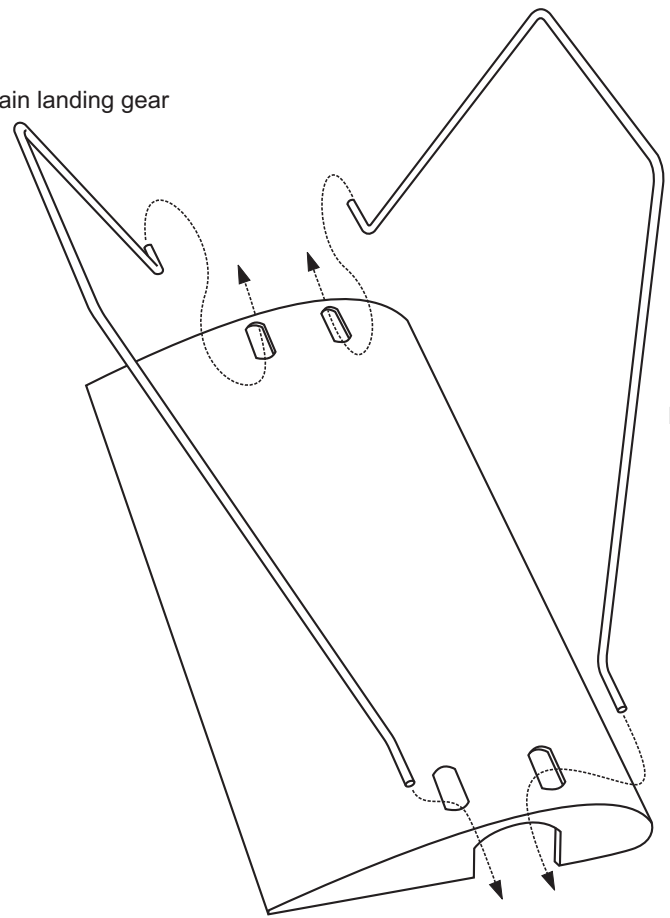
- |                       |
|-----------------------|
| 4x15mm bolt / nut...4 |
|-----------------------|



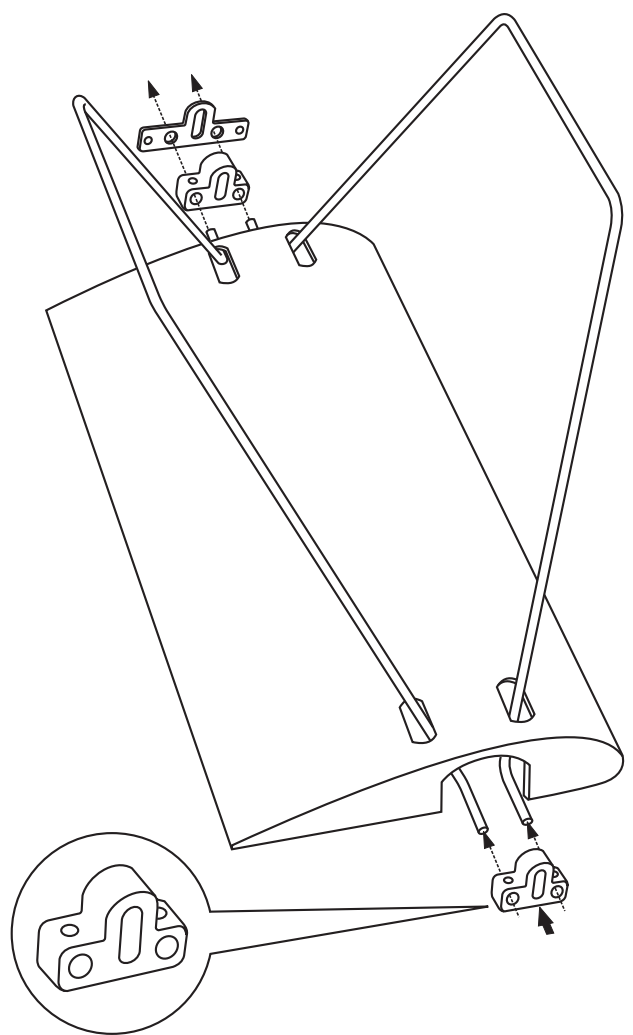
Adjust the wooden motor mount so the distance from the prop hub to the fire-wall from 145-150mm and tighten the 6mm nuts.

# FOKKER DR1 5- Main landing gear

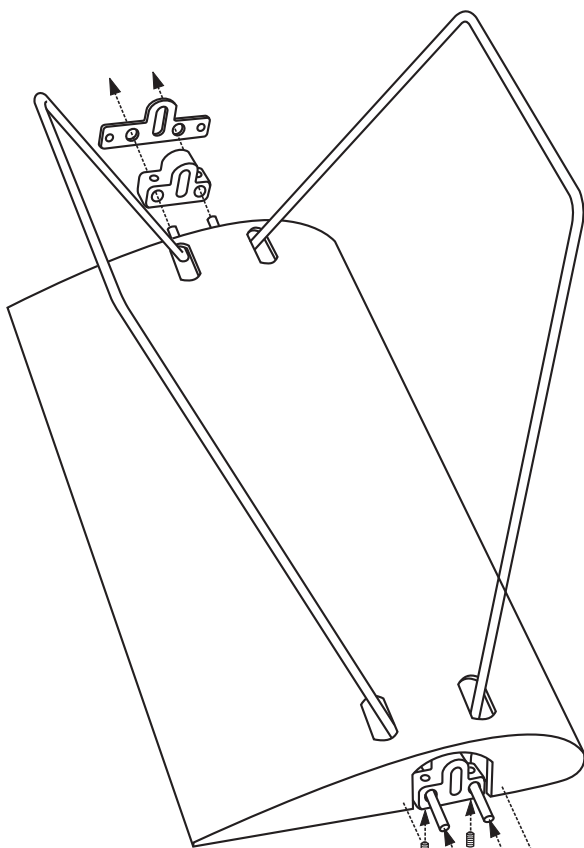
Main landing gear





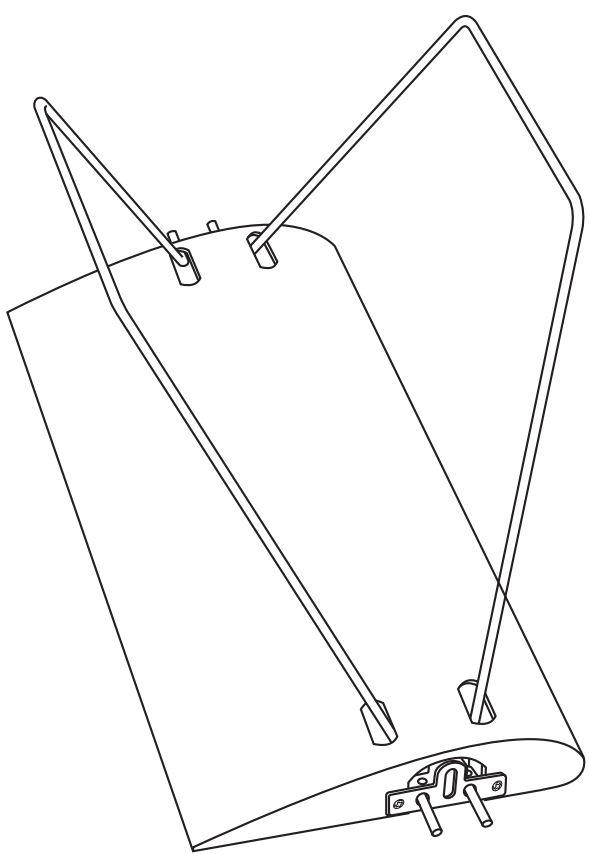
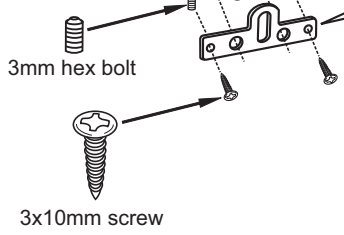
Main landing gear



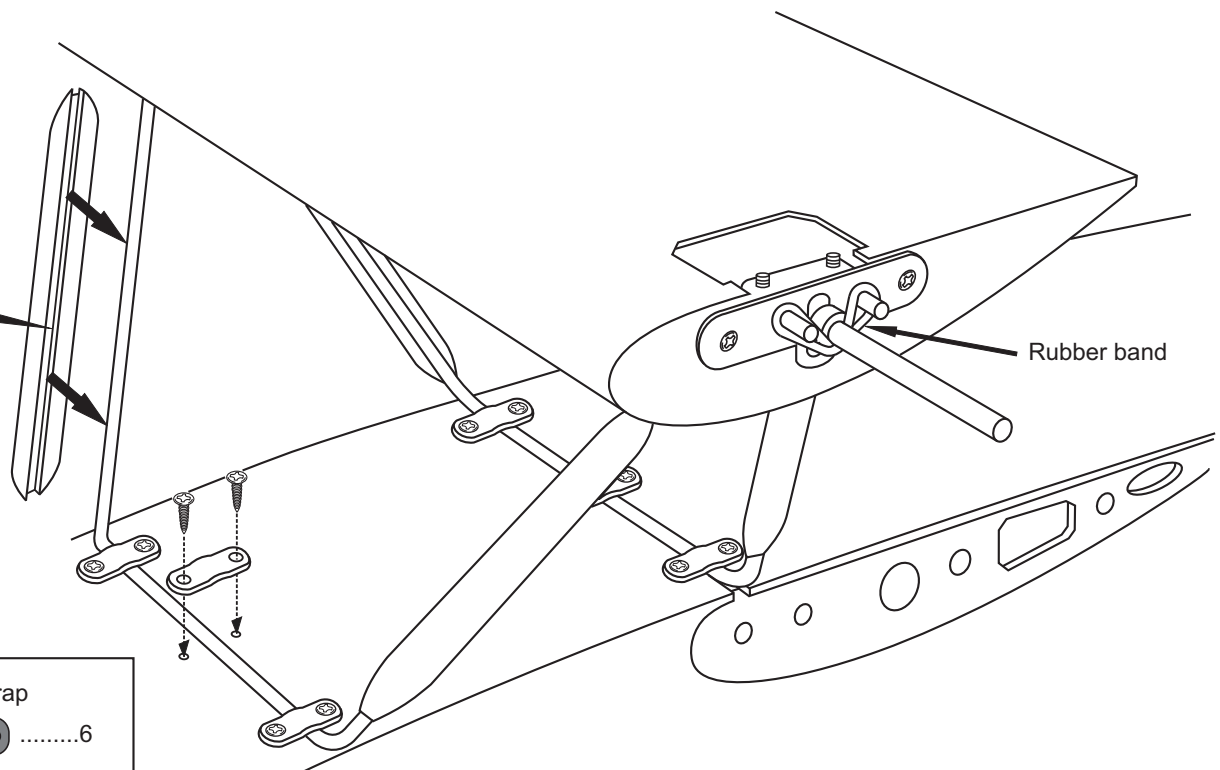




- 3mm hex bolt
-  .....4
- 3x10mm screw
-  .....4



# FOKKER DR1 7- Main landing gear continued




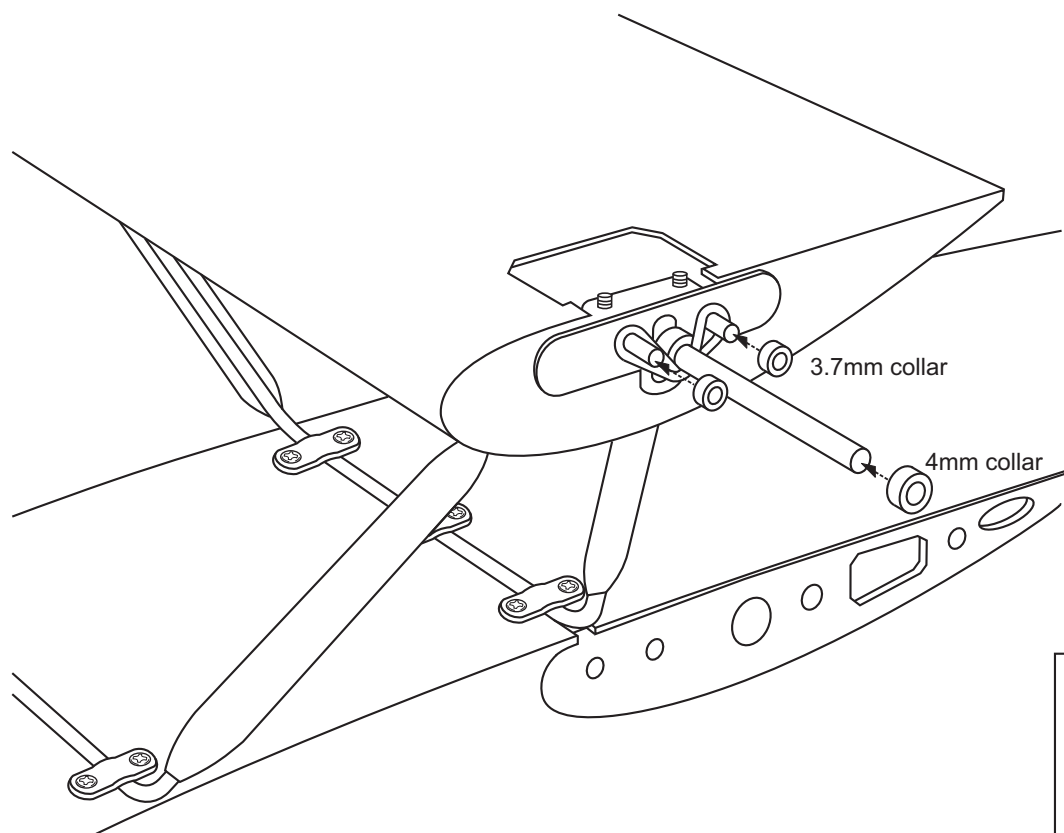
Rubber band

Nylon strap

 .....6

3x12mm screw

 .....12



3.7mm collar

4mm collar

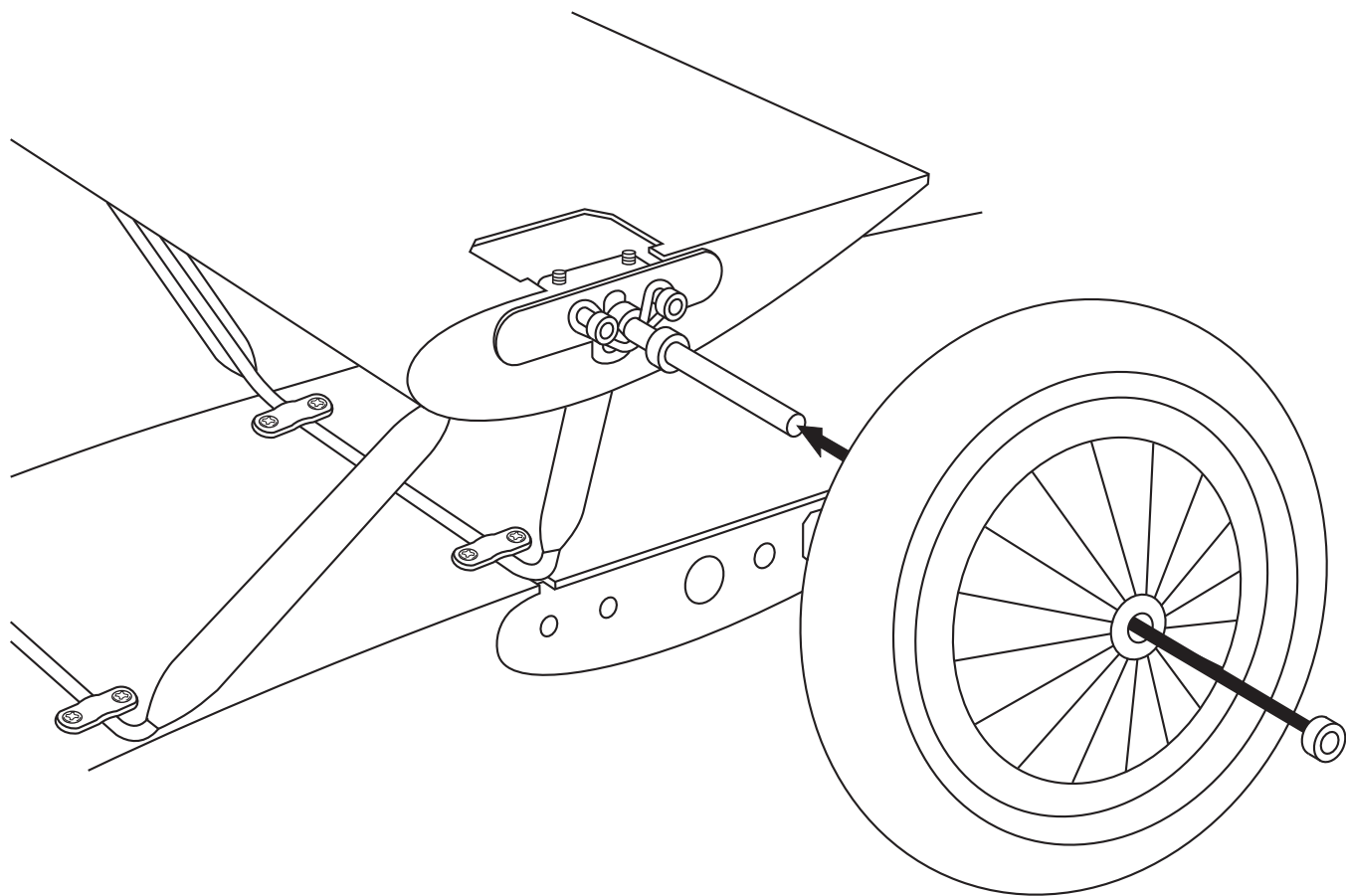
3.7mm collar

  .....4

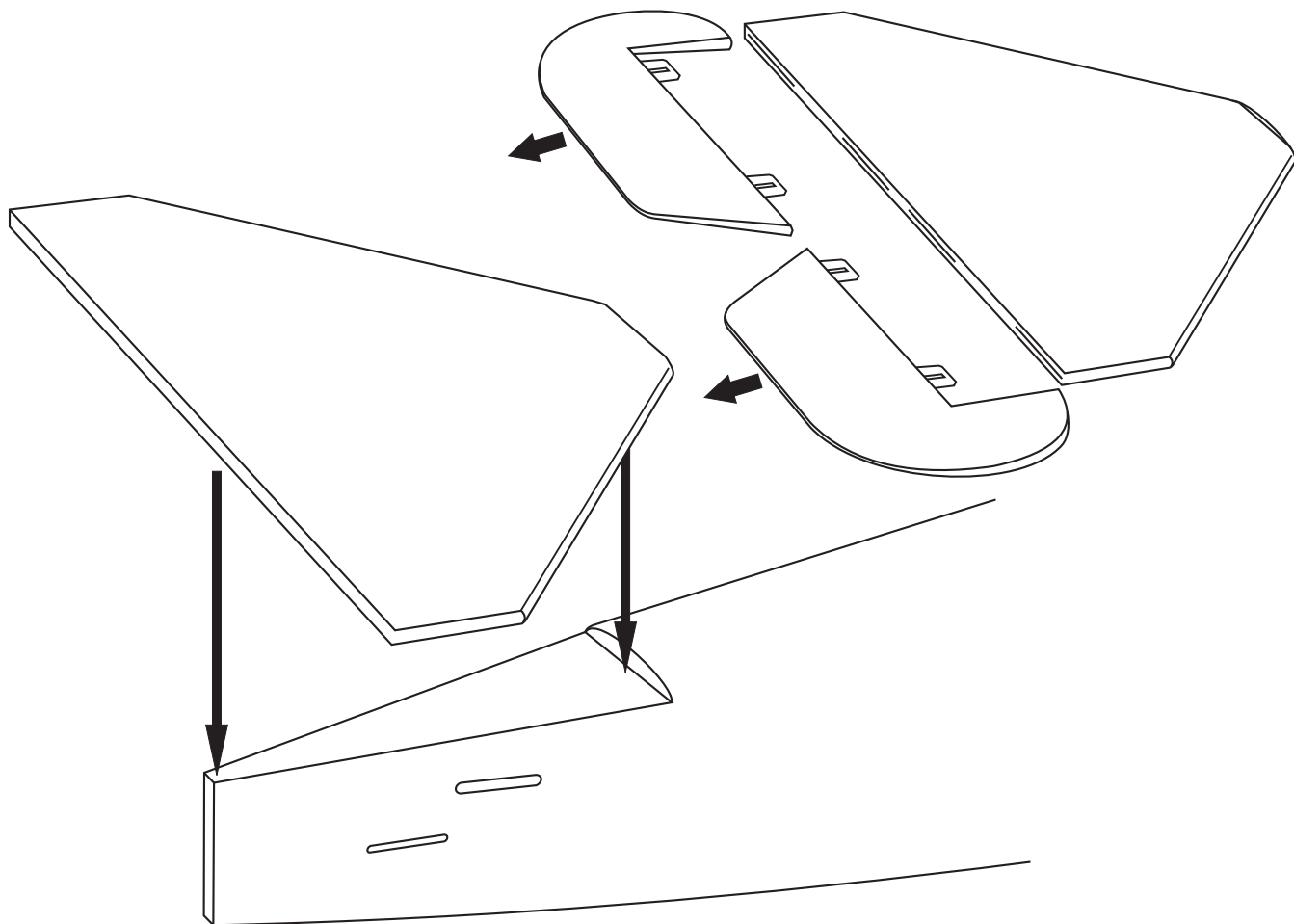
4mm collar

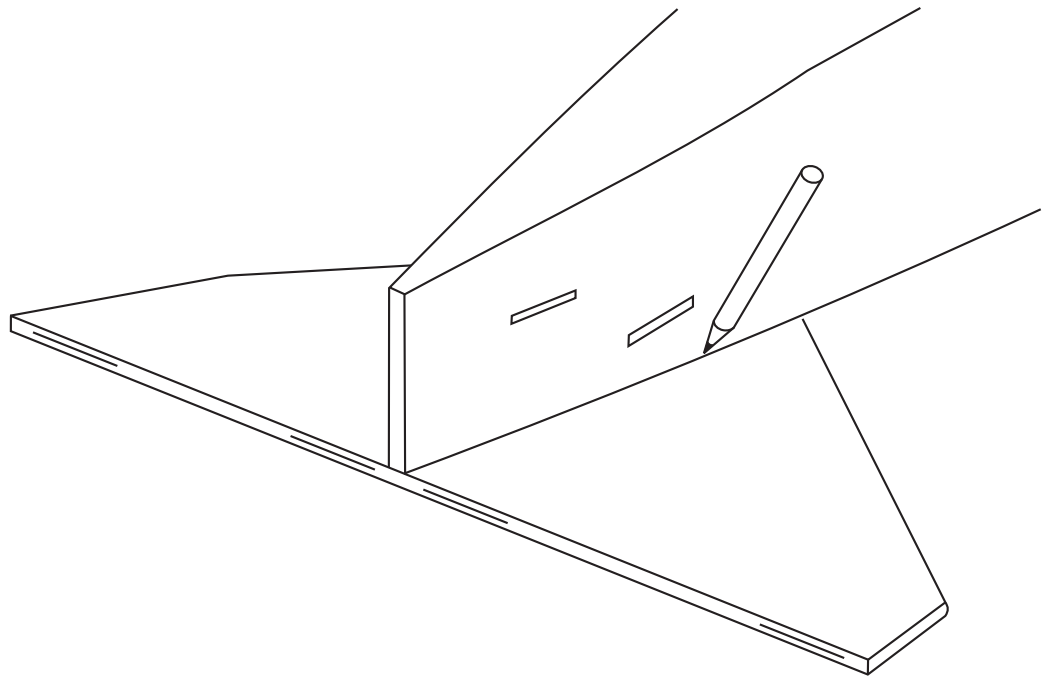
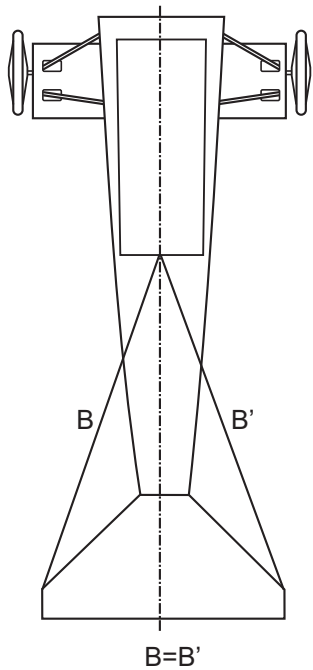
  .....6

**FOKKER DR1** 8- Main landing gear continued



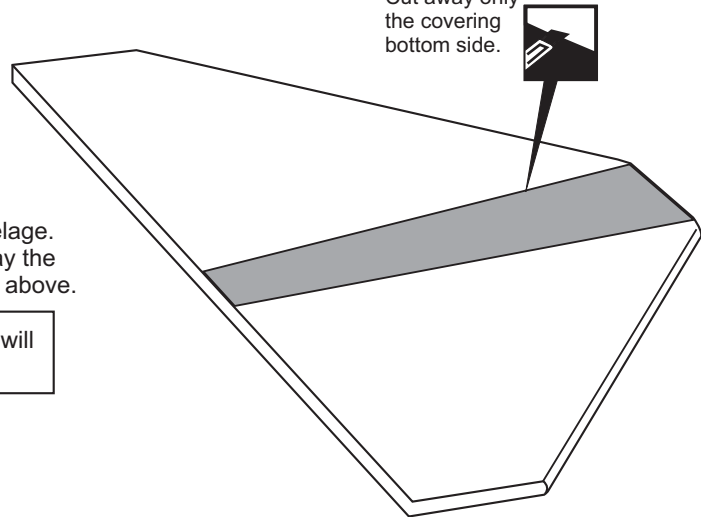
**FOKKER DR1** 9- Horizontal stabilizer





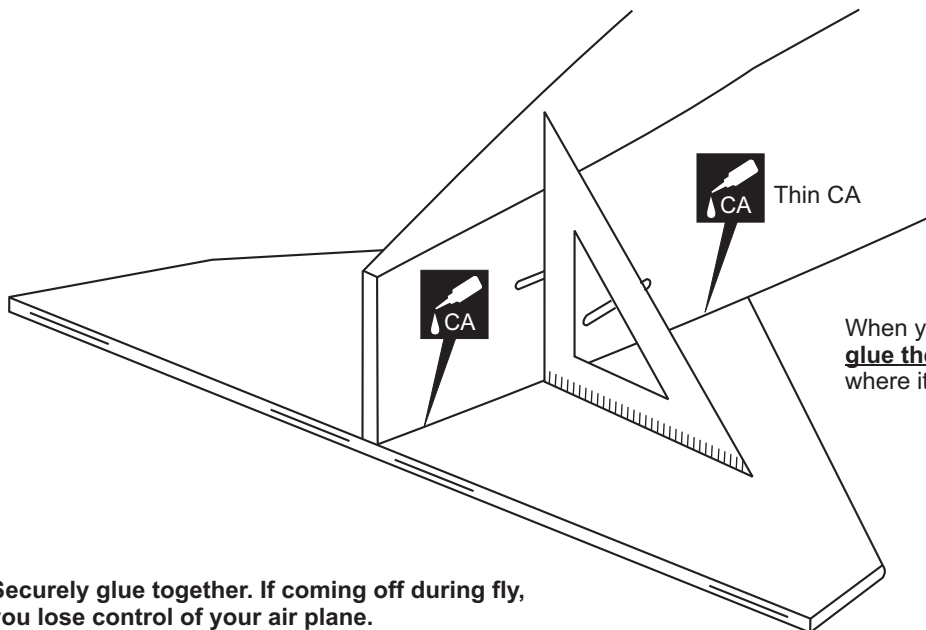
Check the alignment of the horizontal stabilizer. When you are satisfied with the alignment, use a pencil to trace around the bottom of the stabilizer where it meets the fuselage.

Cut away only the covering bottom side.



Remove the horizontal stabilizer from the fuselage. Using the sharp hobby knife, carefully cut away the covering **inside the lines** which were marked above.

Be cautious **not to cut into the wood**, this will weaken the structure.

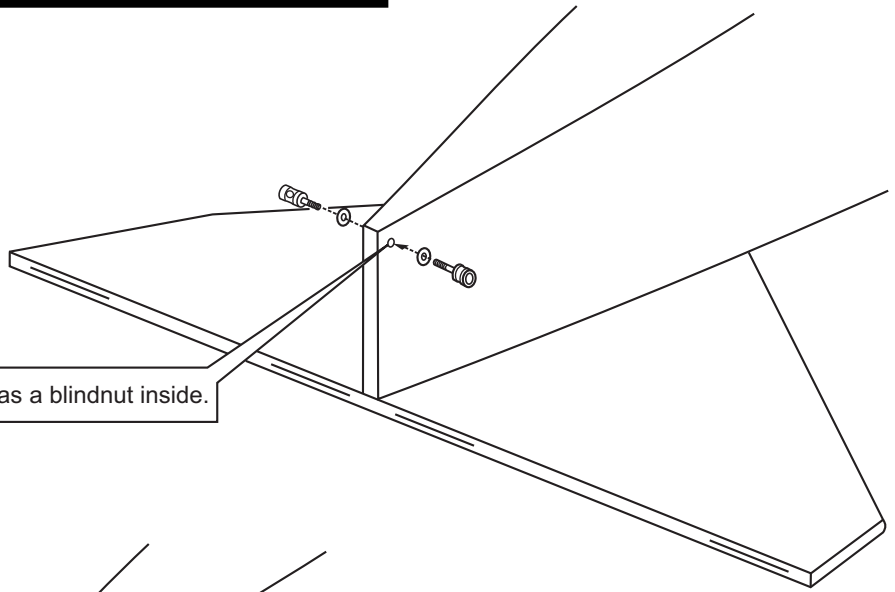


When you are satisfied with the alignment, **glue the bottom side** of the horizontal stabilizer where it meets the fuselage.

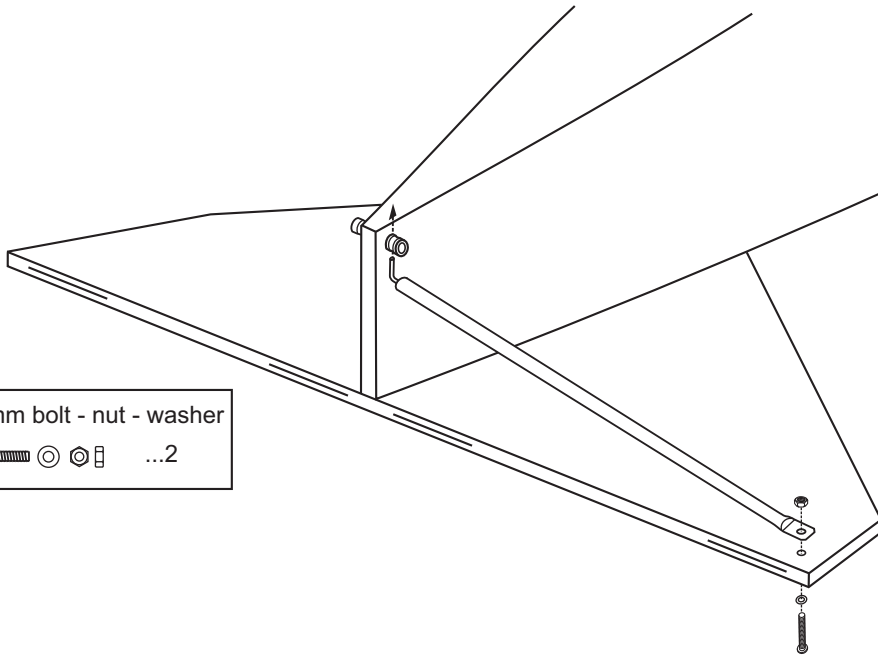
**! Securely glue together. If coming off during fly, you lose control of your air plane.**

## FOKKER DR1 11- Horizontal stabilizer brace

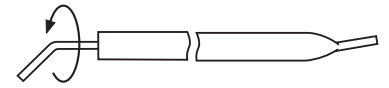
3mm connector



Note: This hole is pre-drilled and has a blindnut inside.

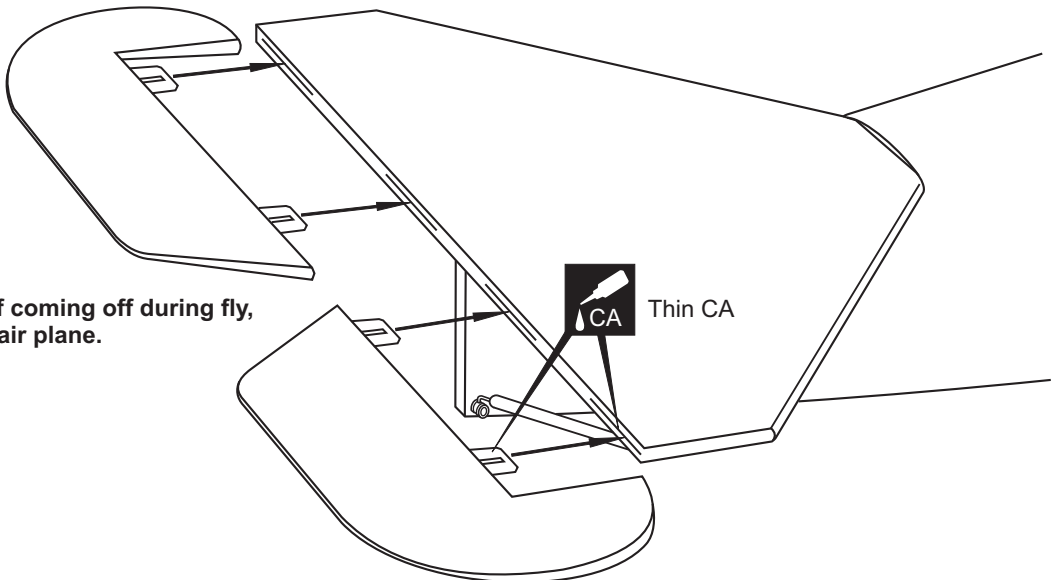


2x20mm bolt - nut - washer



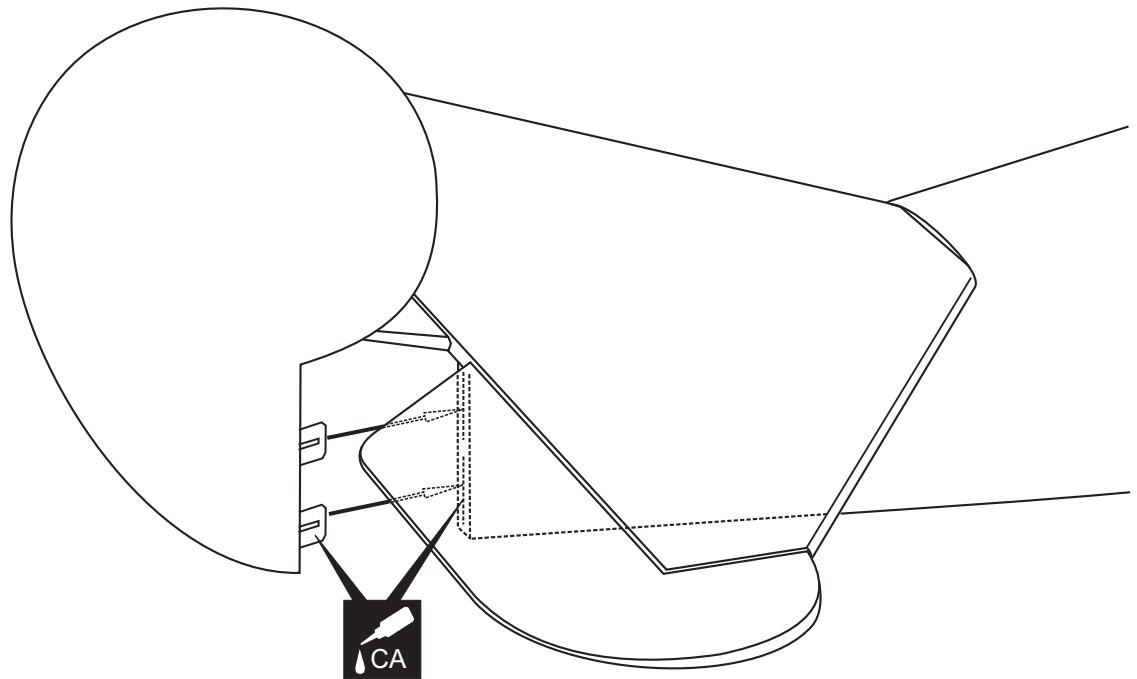
Turn to adjust the length of tail brace

## FOKKER DR1 12- Elevator



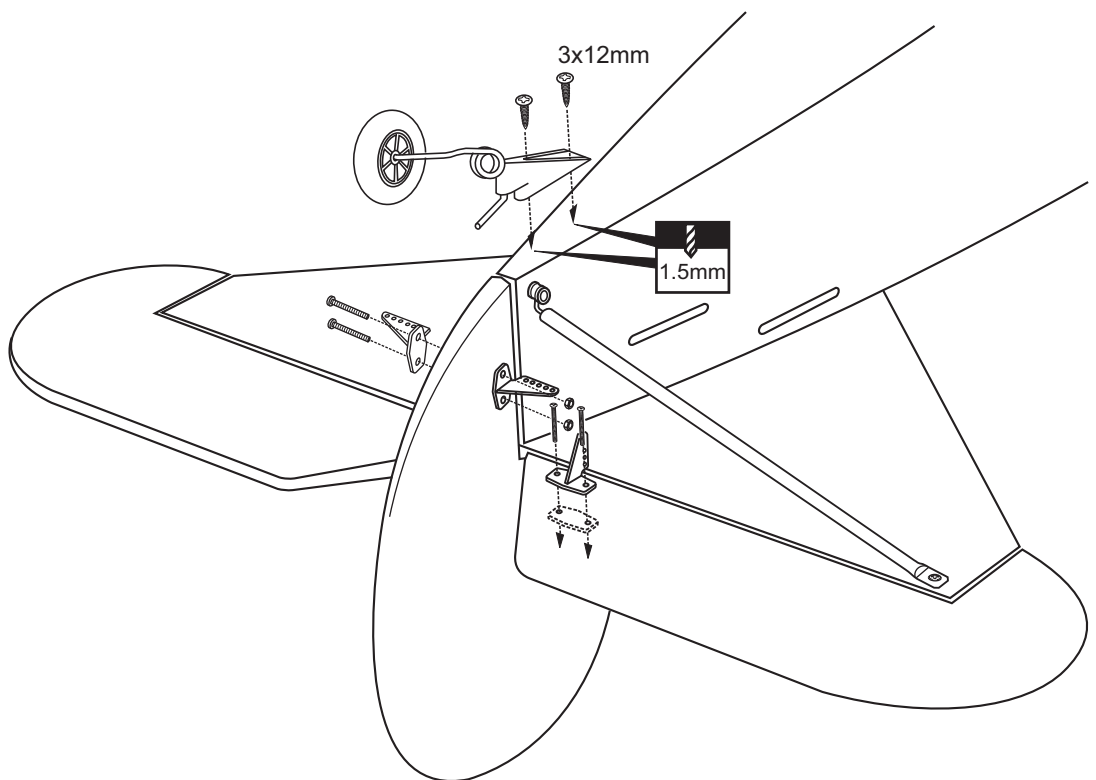
**! Securely glue together. If coming off during fly, you lose control of your air plane.**

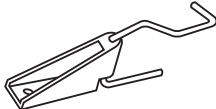






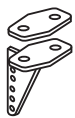
# FOKKER DR1 13- Rudder



**! Securely glue together. If coming off during fly, you lose control of your air plane.**

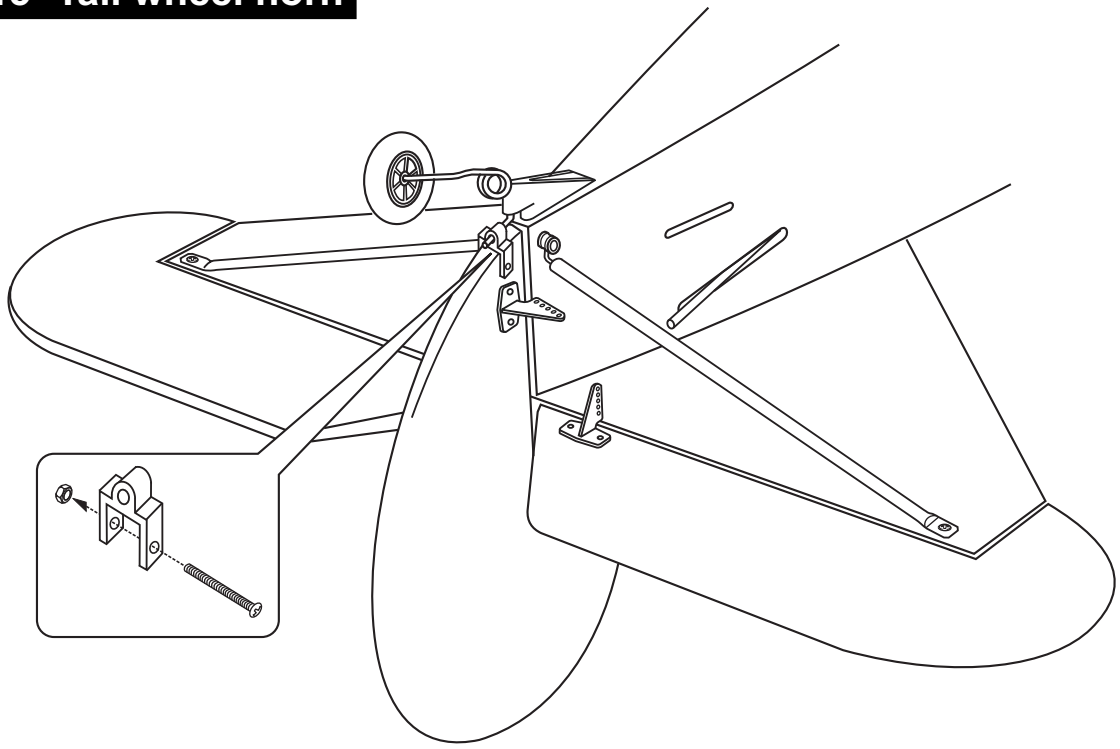
# FOKKER DR1 14- Tail wheel and control horn



- 
-   3x12mm
-  2.8mm collar
- Control horn
-  .....2
- 2x20mm bolt
-  .....4
- 2mm nut
-  .....2
- Control horn / flat
-  .....2 set

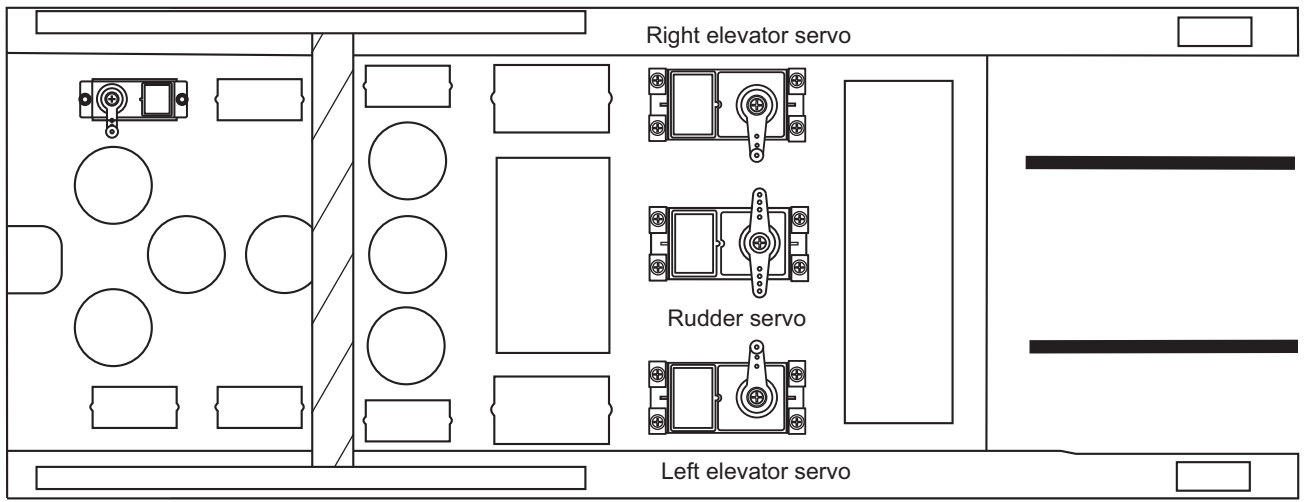
# FOKKER DR1 15- Tail wheel horn

Tail wheel horn...1  
 2x15mm.....1

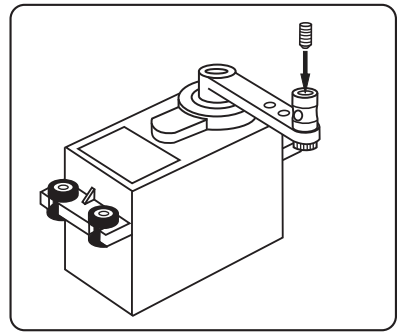
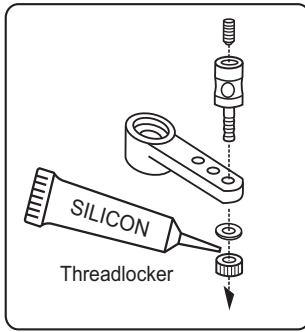


# FOKKER DR1 16- Servo

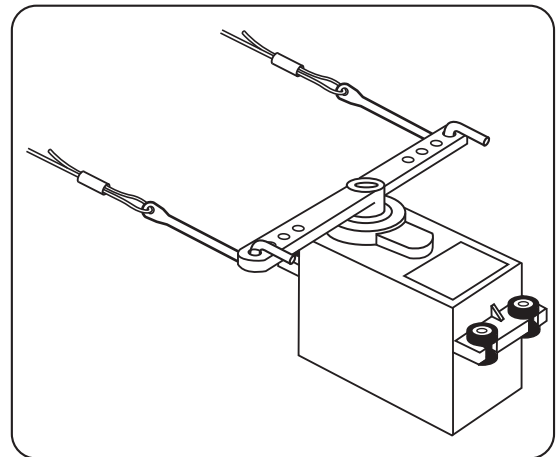
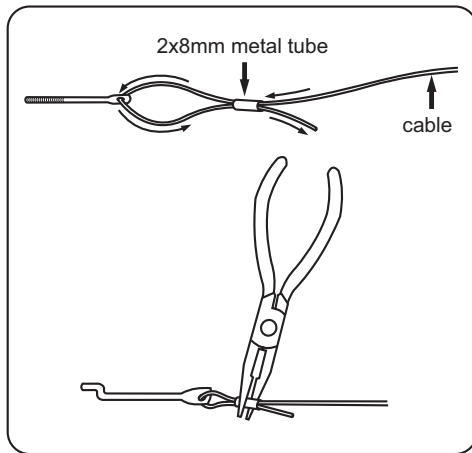
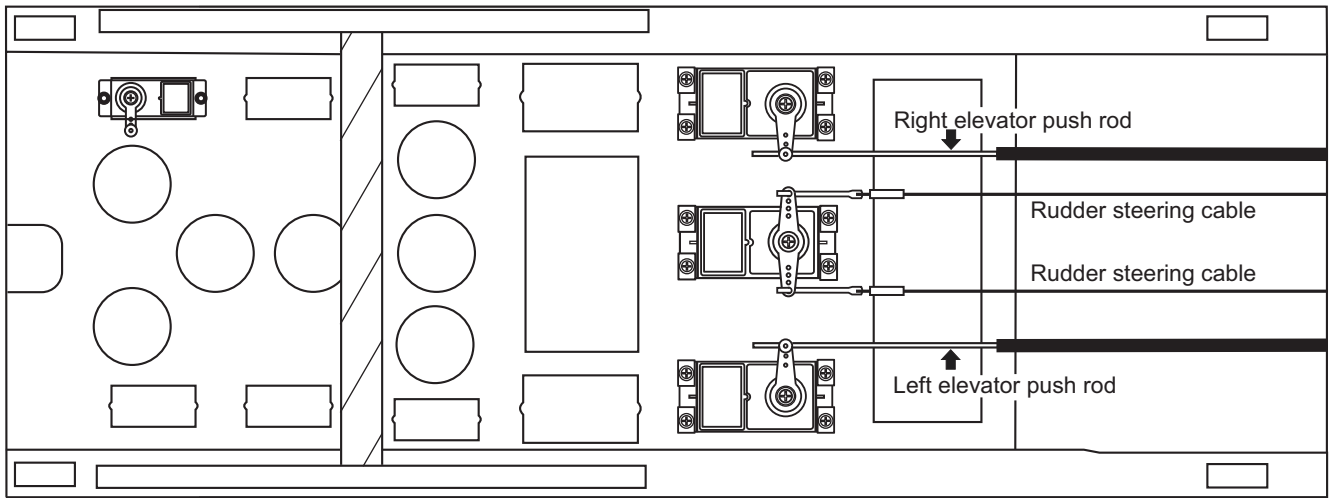
Throttle servo (GP) FUSELAGE - TOP VIEW







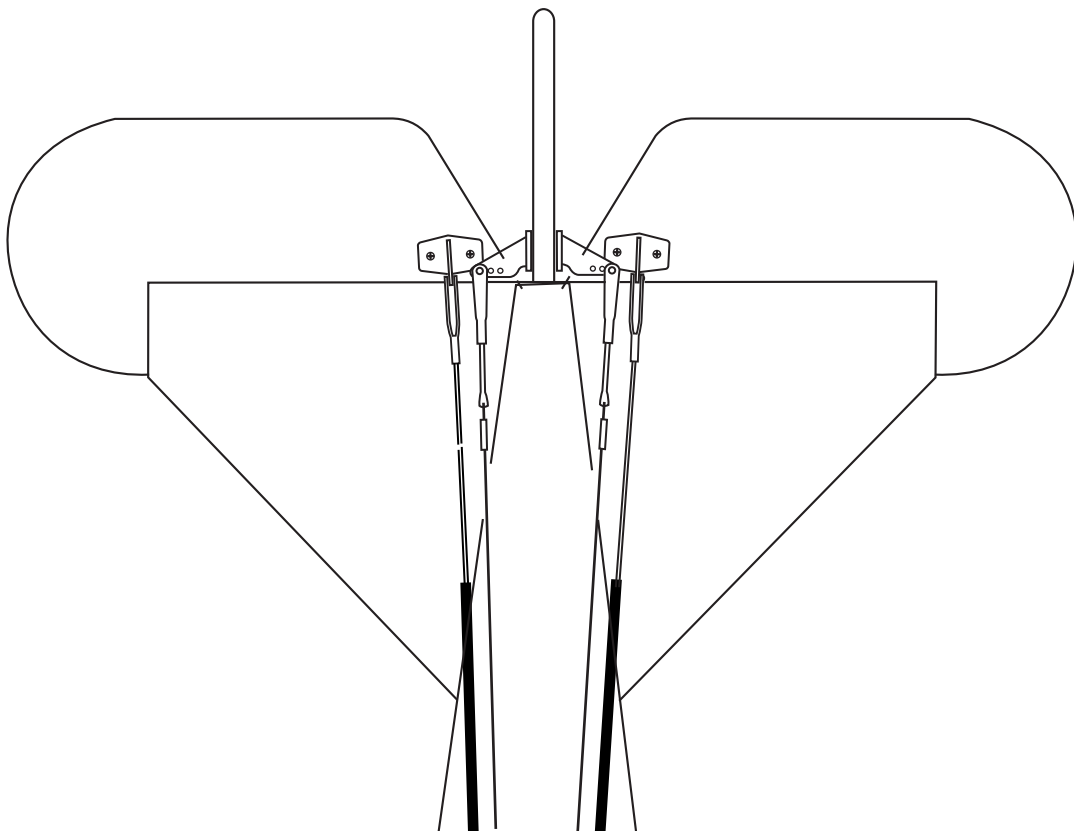
2mm connector  
 .....2



# FOKKER DR1 17- Linkages

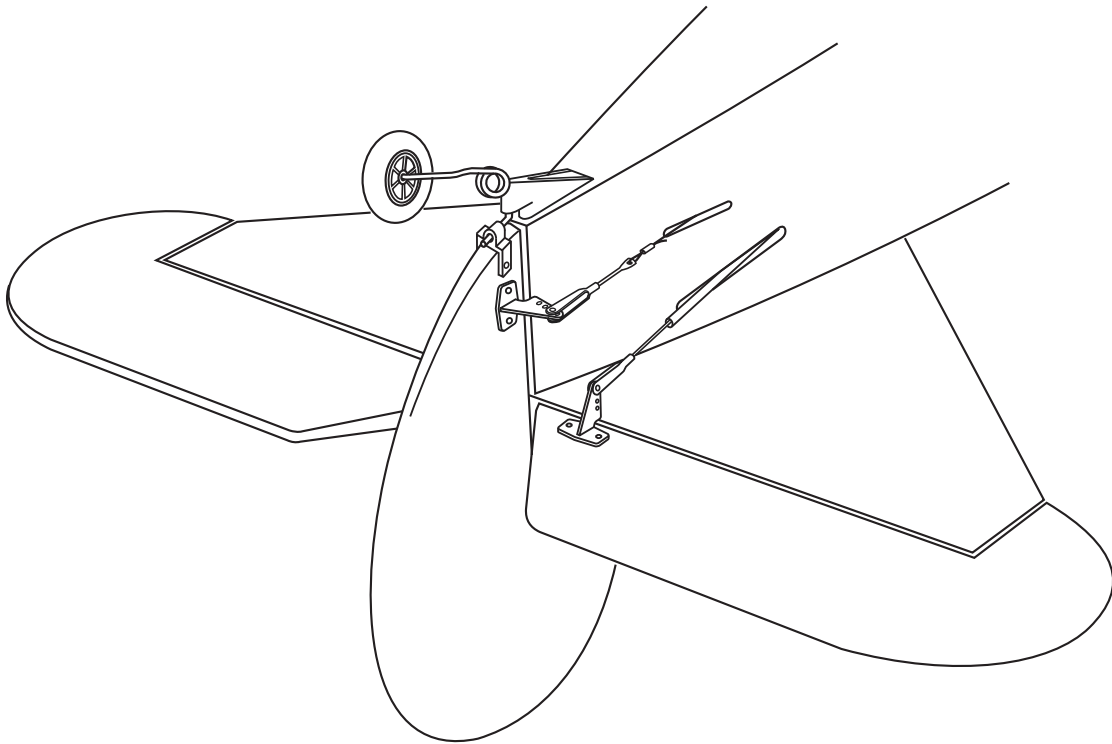


-  .....4
-  .....2
-  .....2
- 2x8mm metal tube
-  .....4

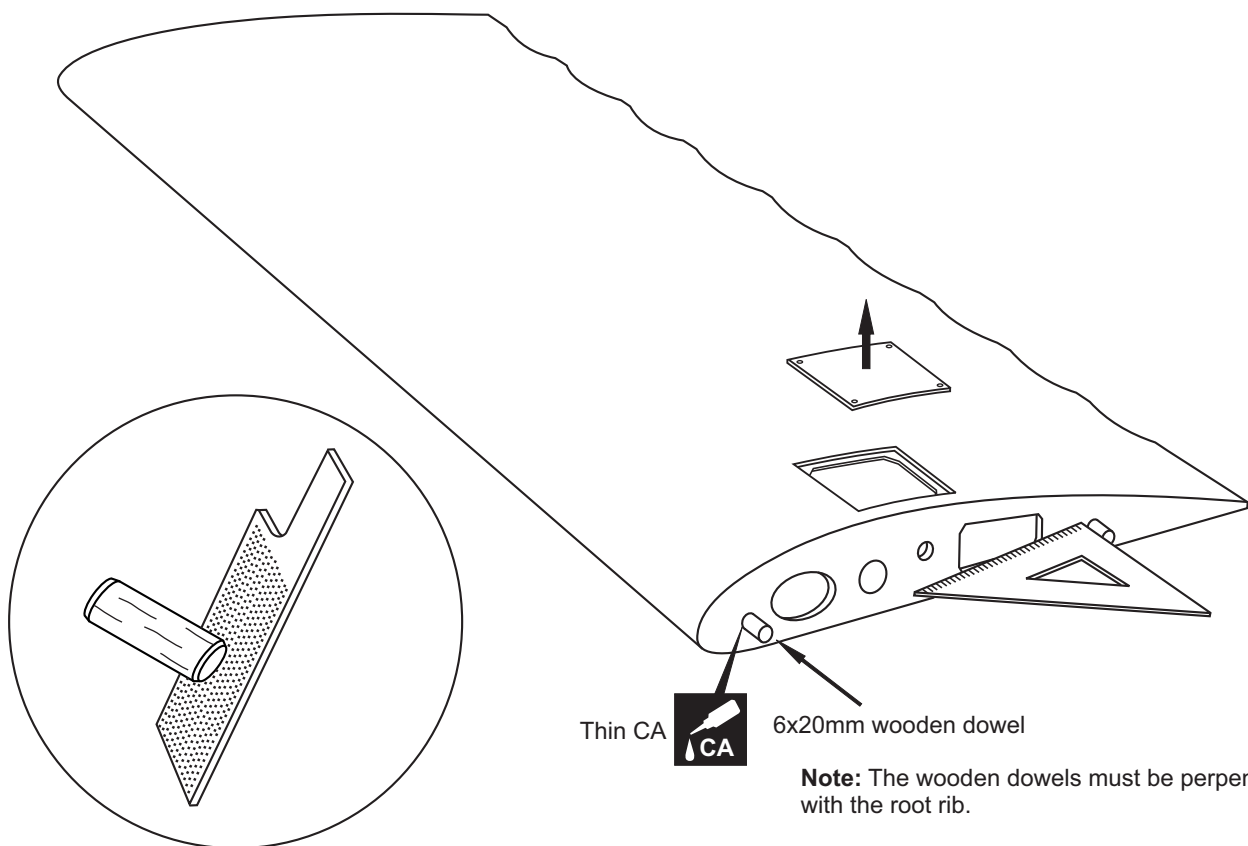




## FOKKER DR1 18- Linkages continued

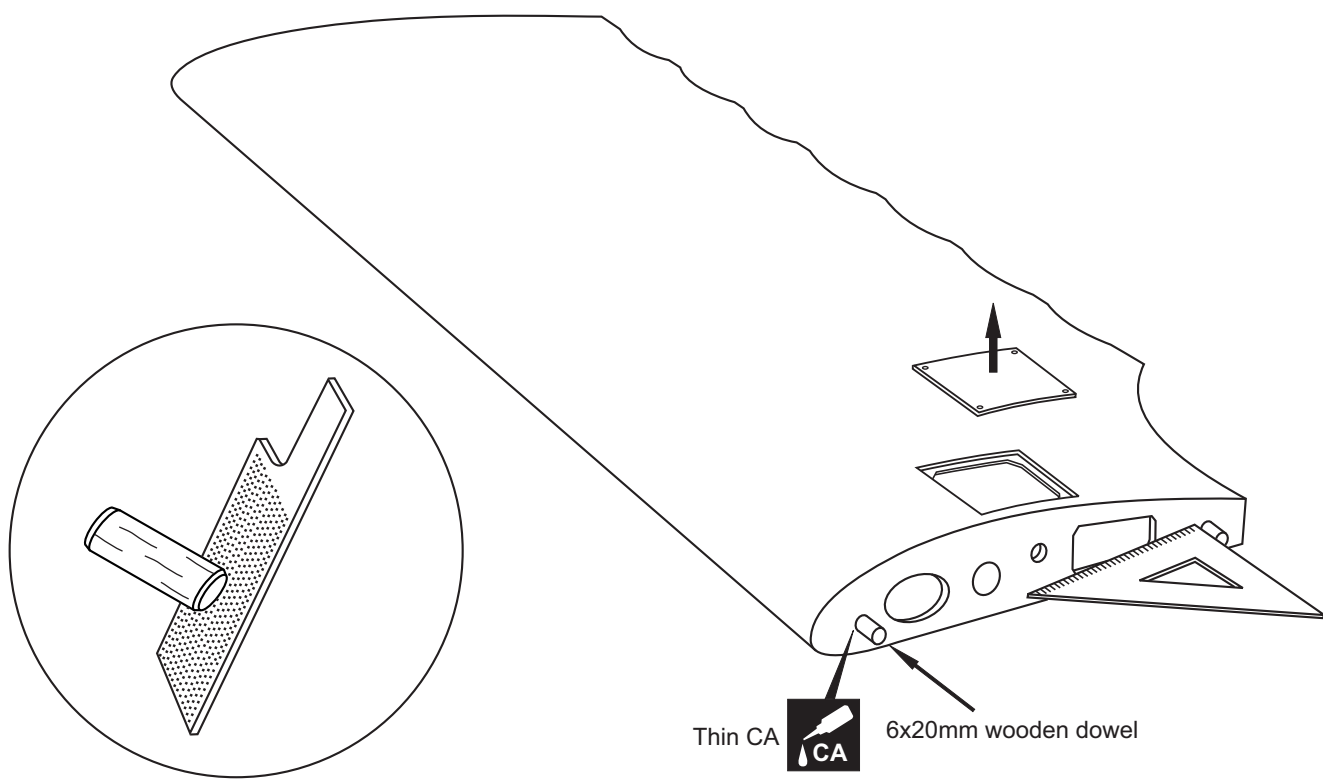


## FOKKER DR1 19- Low wing: dowel

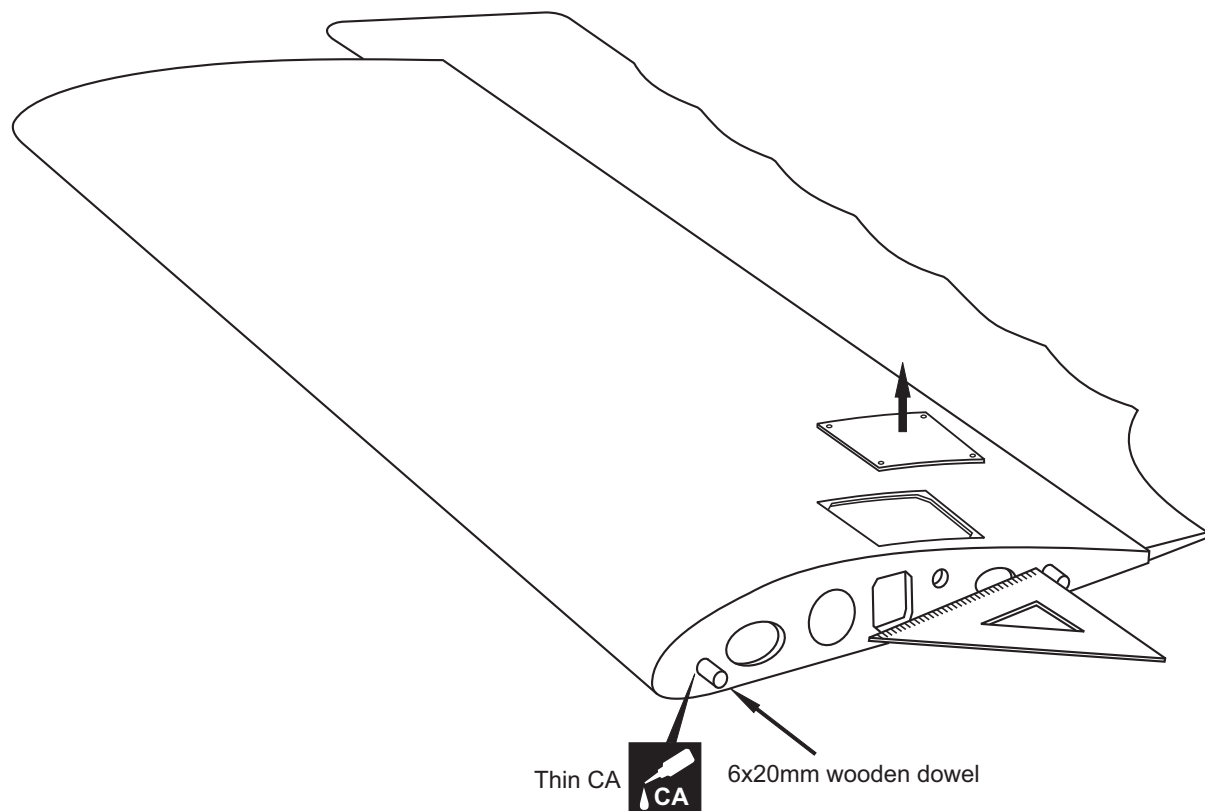


**Note:** You should grind the tip of the wooden dowels to make it easier to push into the root rib.

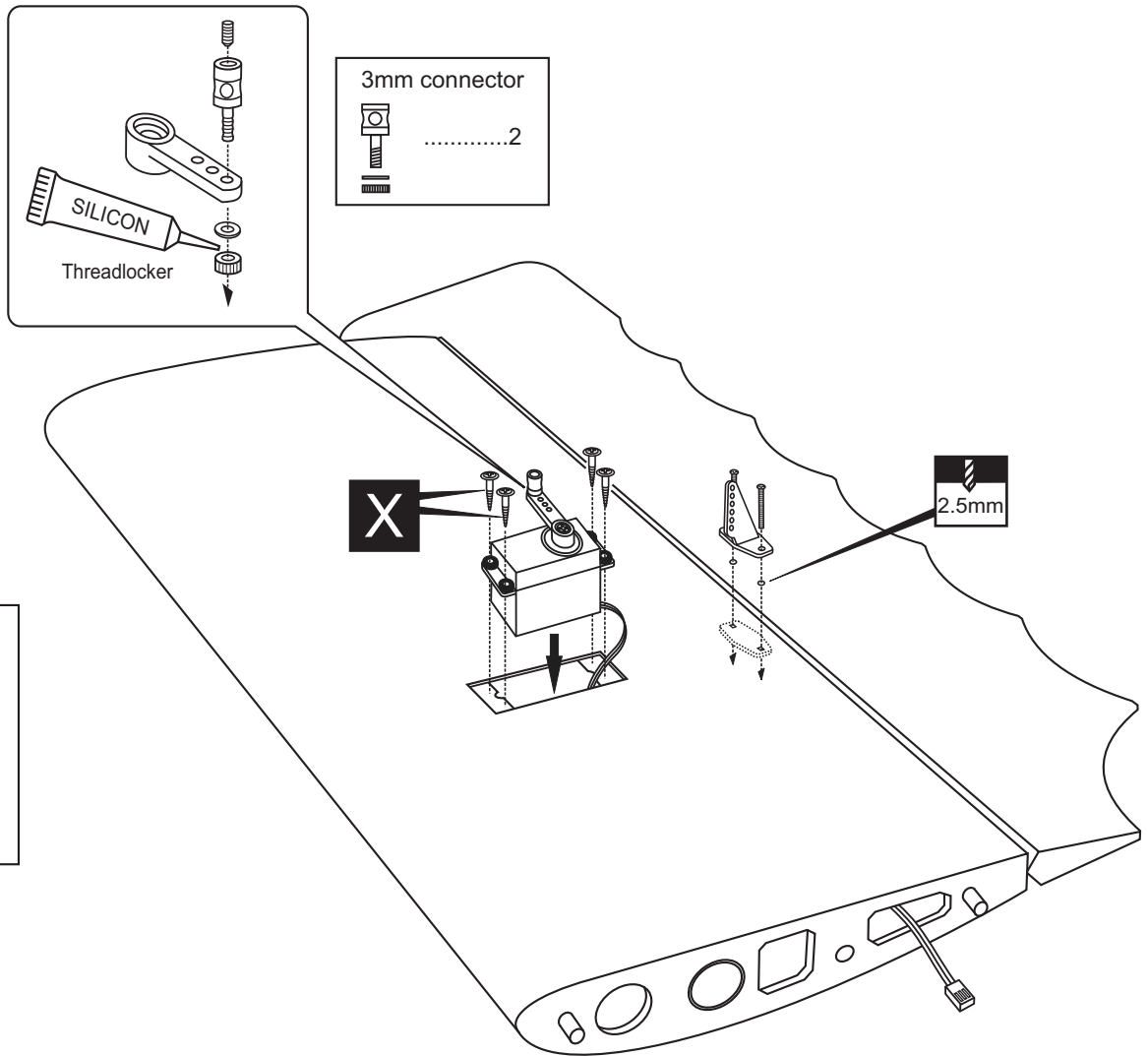
**FOKKER DR1 20- Middle wing: dowel**



**FOKKER DR1 21- High wing: dowel**



# FOKKER DR1 22- Aileron servo



3mm connector  
.....2

SILICON  
Threadlocker

2.5mm

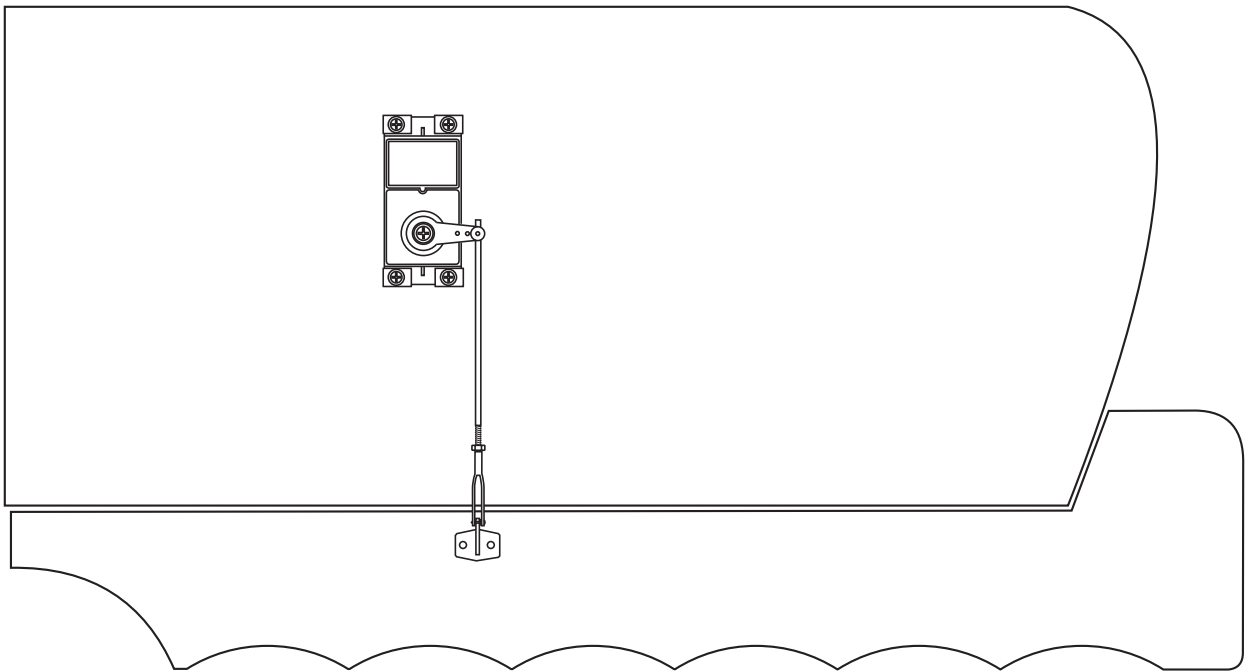
X

Control horn and  
2x30mm bolt  
  
2 Set

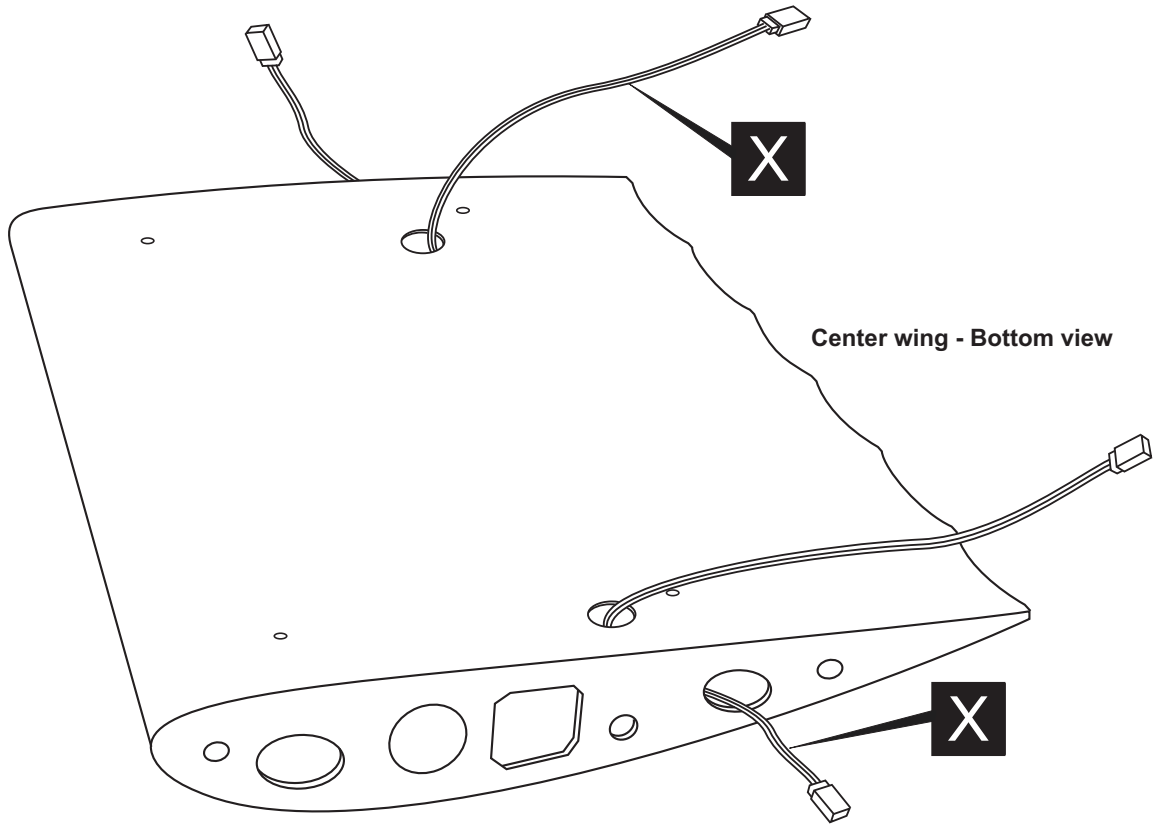
# FOKKER DR1 23- Aileron linkage

Aileron push-rod  
.....2

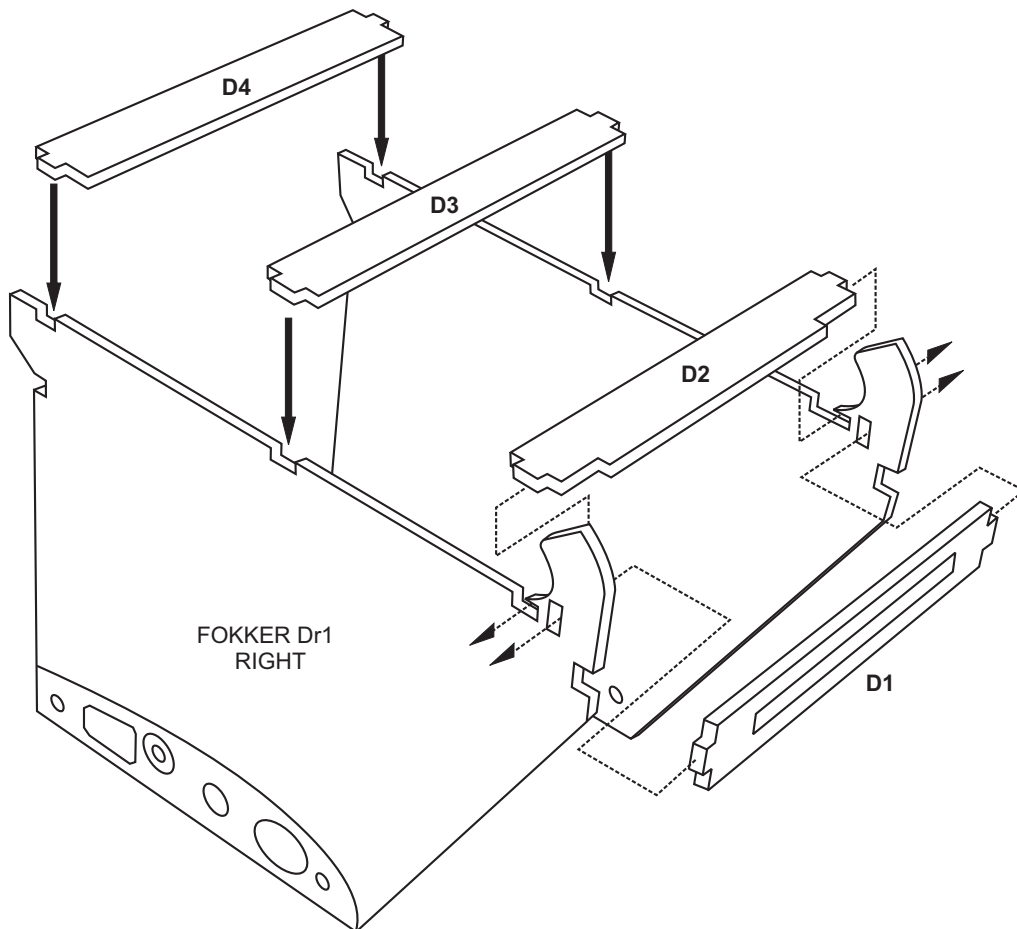
High wing - Bottom view



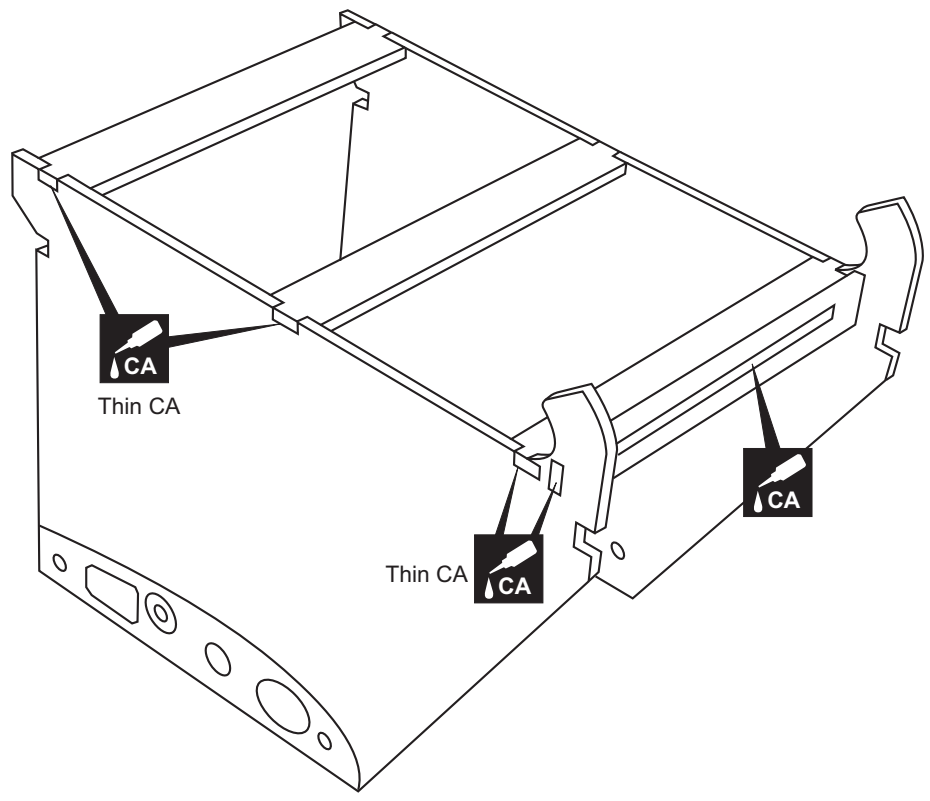
**FOKKER DR1 24- Center wing: Aileron servo extension cord**



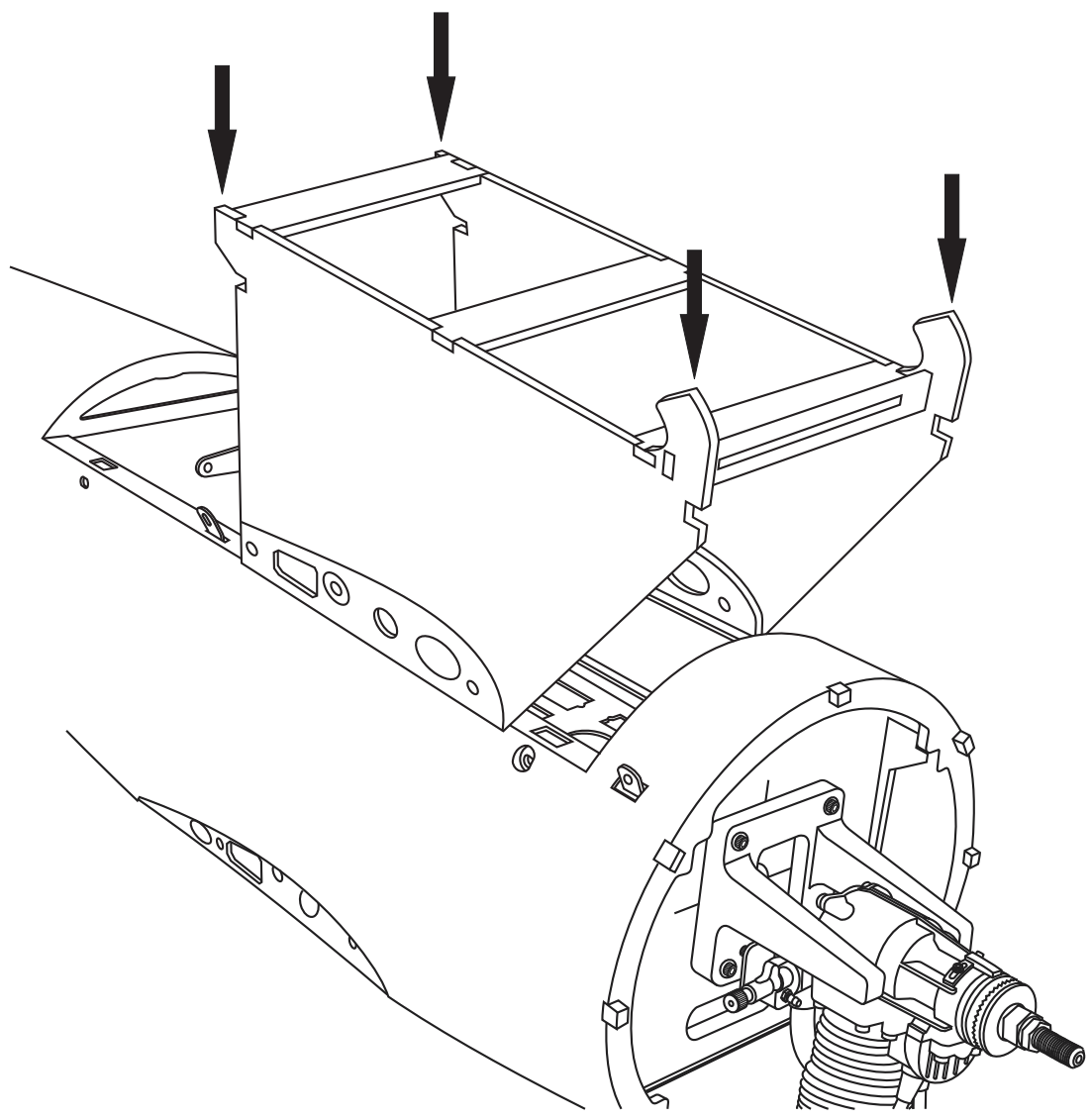
**FOKKER DR1 25- Wing jig assembly**



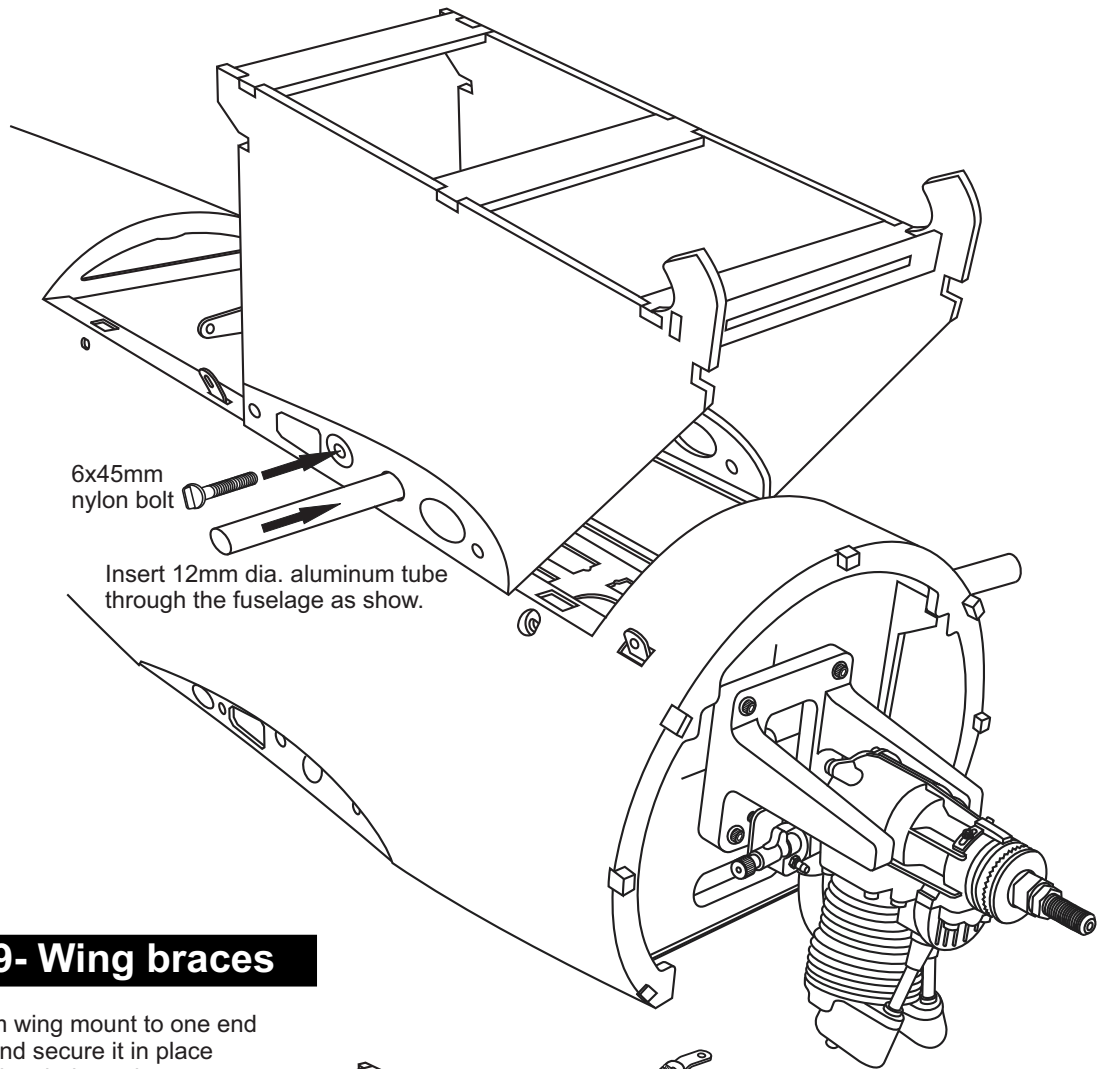
**FOKKER DR1 26- Wing jig assembly continued**



**FOKKER DR1 27- Wing jig inatallation**



# FOKKER DR1 28- Wing jig installation continued



6x45mm  
nylon bolt

Insert 12mm dia. aluminum tube  
through the fuselage as show.

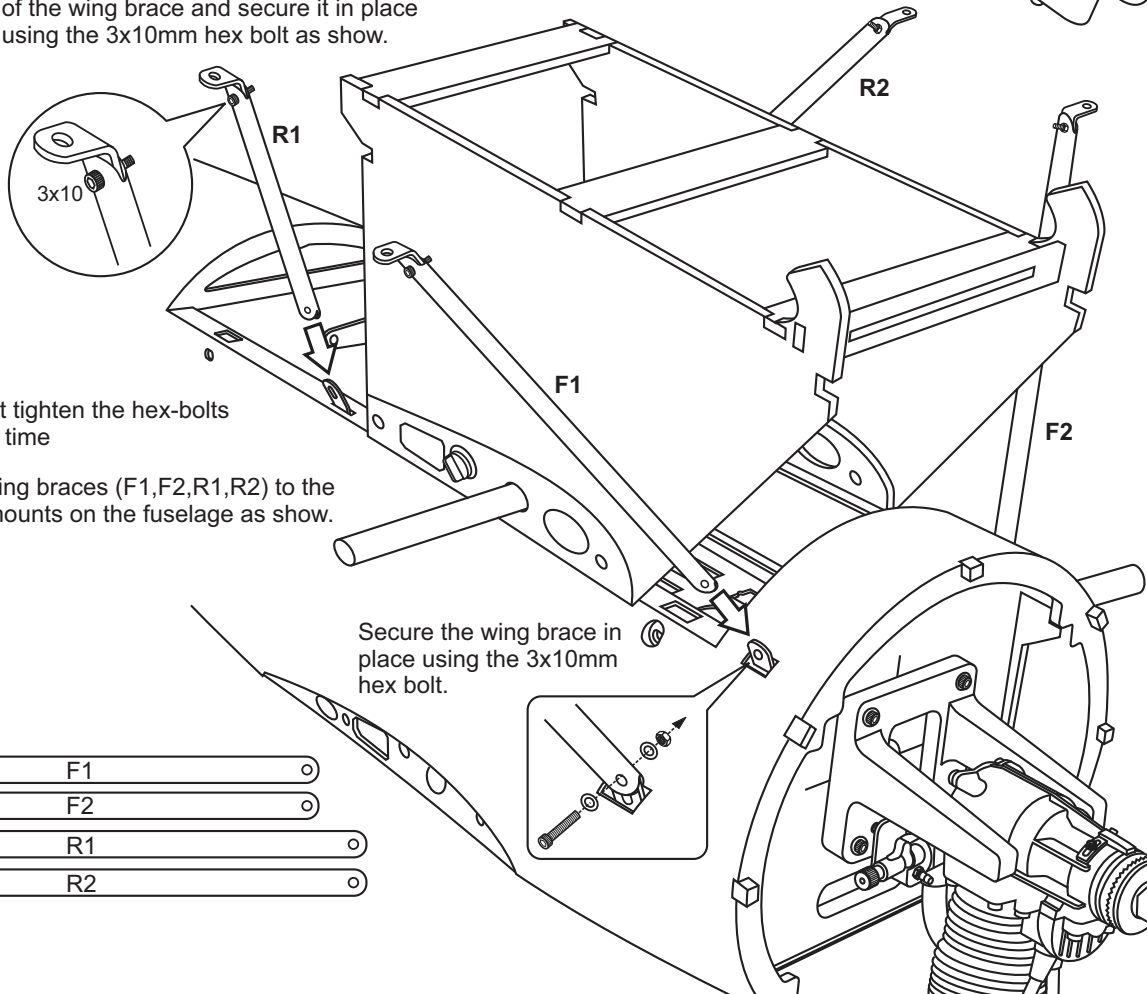
6x45mm nylon bolt



Included in hardware bag

# FOKKER DR1 29- Wing braces

Insert the aluminum wing mount to one end  
of the wing brace and secure it in place  
using the 3x10mm hex bolt as show.



**Note:** Do not tighten the hex-bolts  
at this time

Insert the wing braces (F1,F2,R1,R2) to the  
aluminum mounts on the fuselage as show.

Secure the wing brace in  
place using the 3x10mm  
hex bolt.

F1

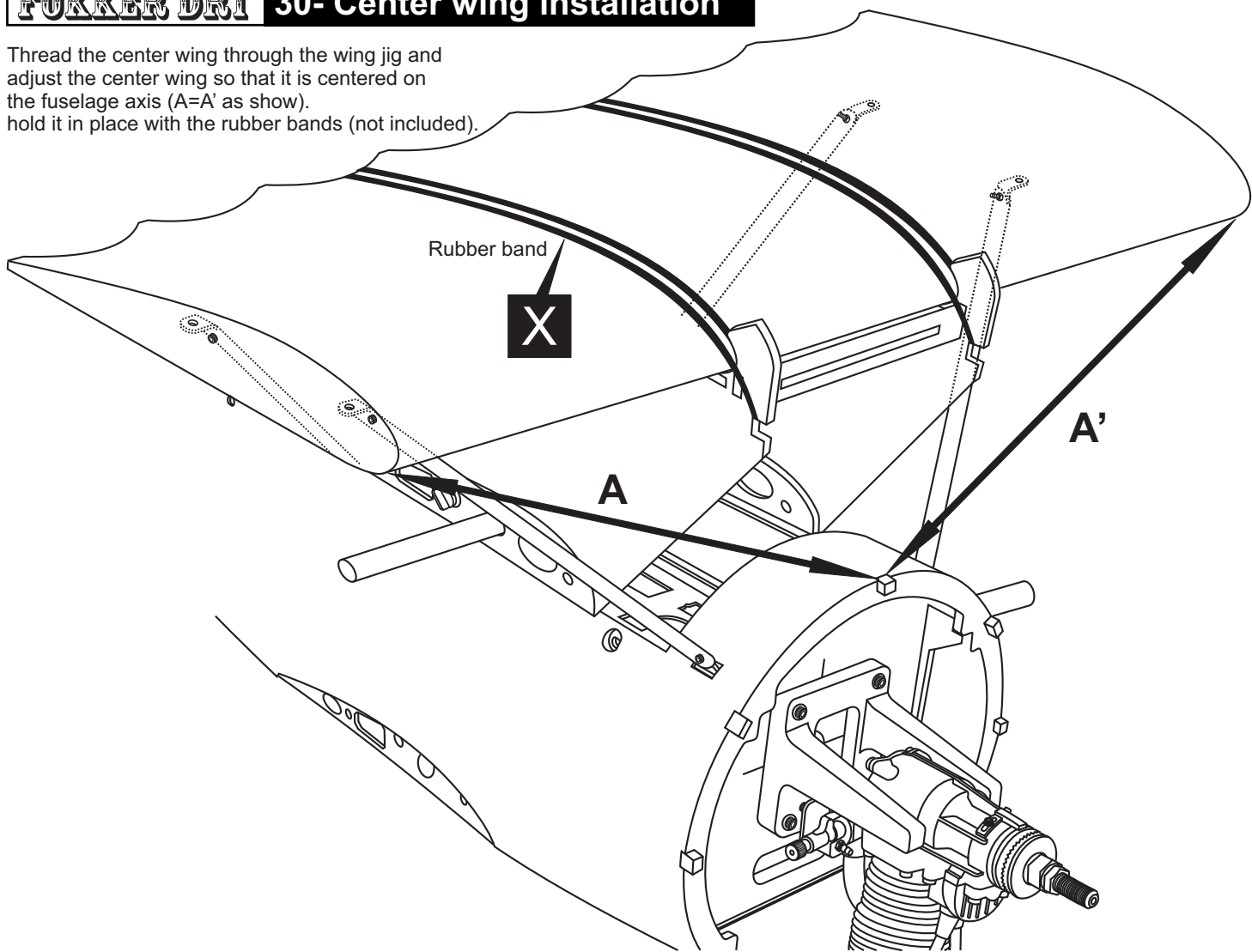
F2

R1

R2

# FOKKER DR1 30- Center wing installation

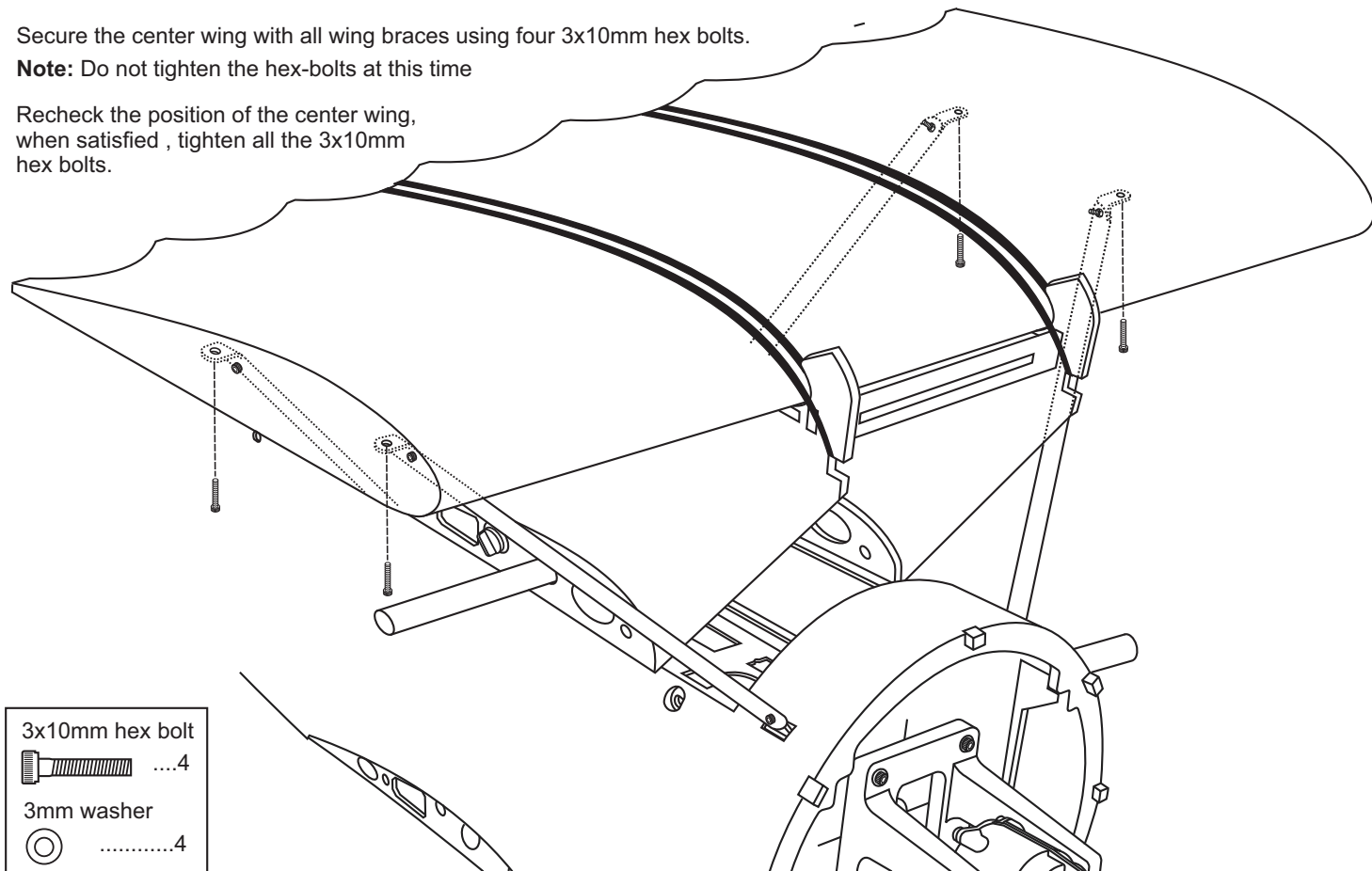
Thread the center wing through the wing jig and adjust the center wing so that it is centered on the fuselage axis (A=A' as show). hold it in place with the rubber bands (not included).



Secure the center wing with all wing braces using four 3x10mm hex bolts.

**Note:** Do not tighten the hex-bolts at this time

Recheck the position of the center wing, when satisfied , tighten all the 3x10mm hex bolts.



3x10mm hex bolt

.....4

3mm washer

.....4

## FOKKER DR1 31- Remove the wing jig

Remove the 6x45mm nylon bolt.

Remove the aluminum tube.

Remove the rubber bands, two 6x45mm nylon bolts and the aluminum tube, pull the wing jig out of the wing.

## FOKKER DR1 32- Aluminum wing joiner

12x410mm Aluminum tube ...2

19x318mm Aluminum tube ...2

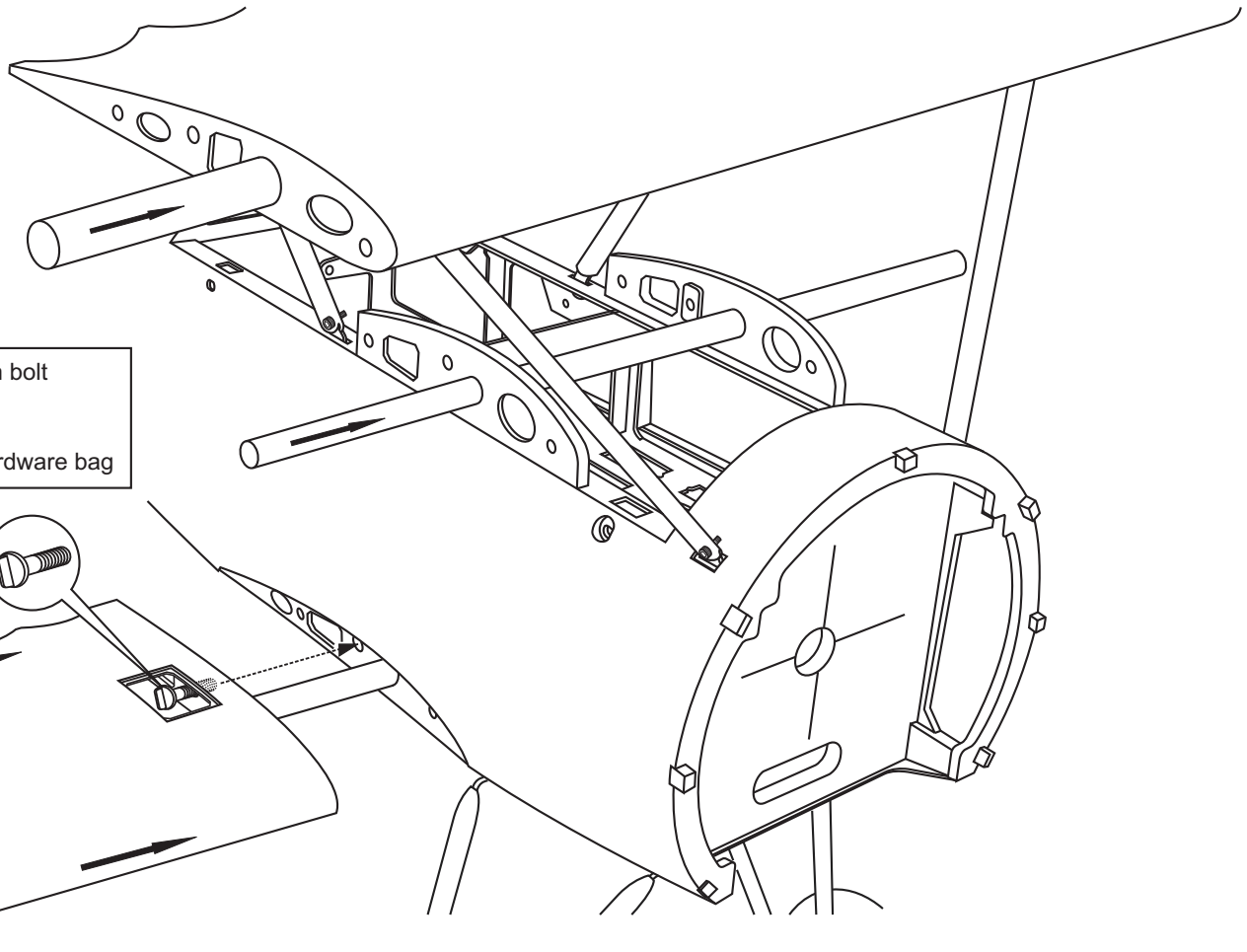
Insert two 19mm diameter aluminum tube through the center wing as show,

Insert 12mm aluminum tube through the fuselage as show.

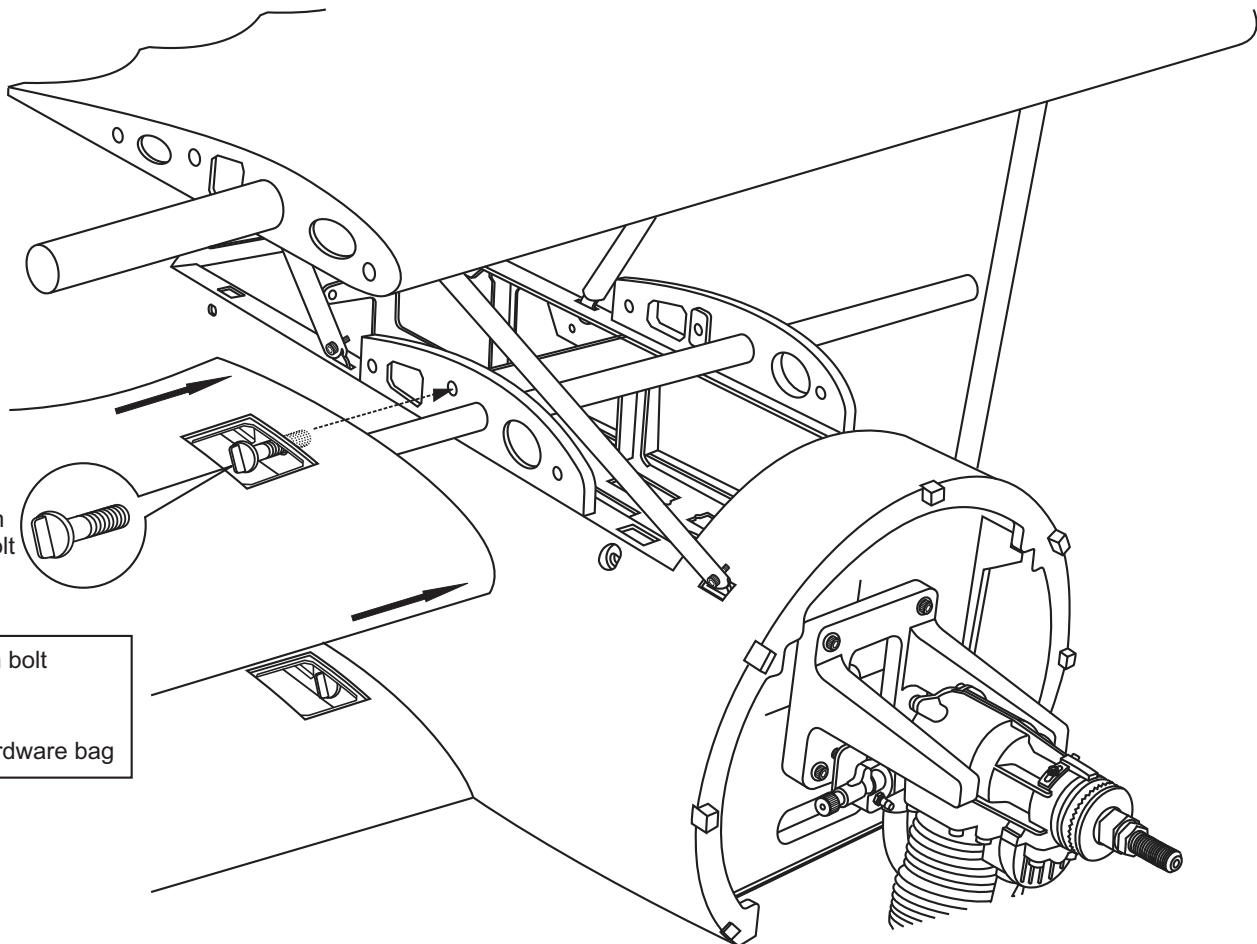
Insert 12mm aluminum tube through the fuselage as show.



## FOKKER DR1 33- Lower wing installation

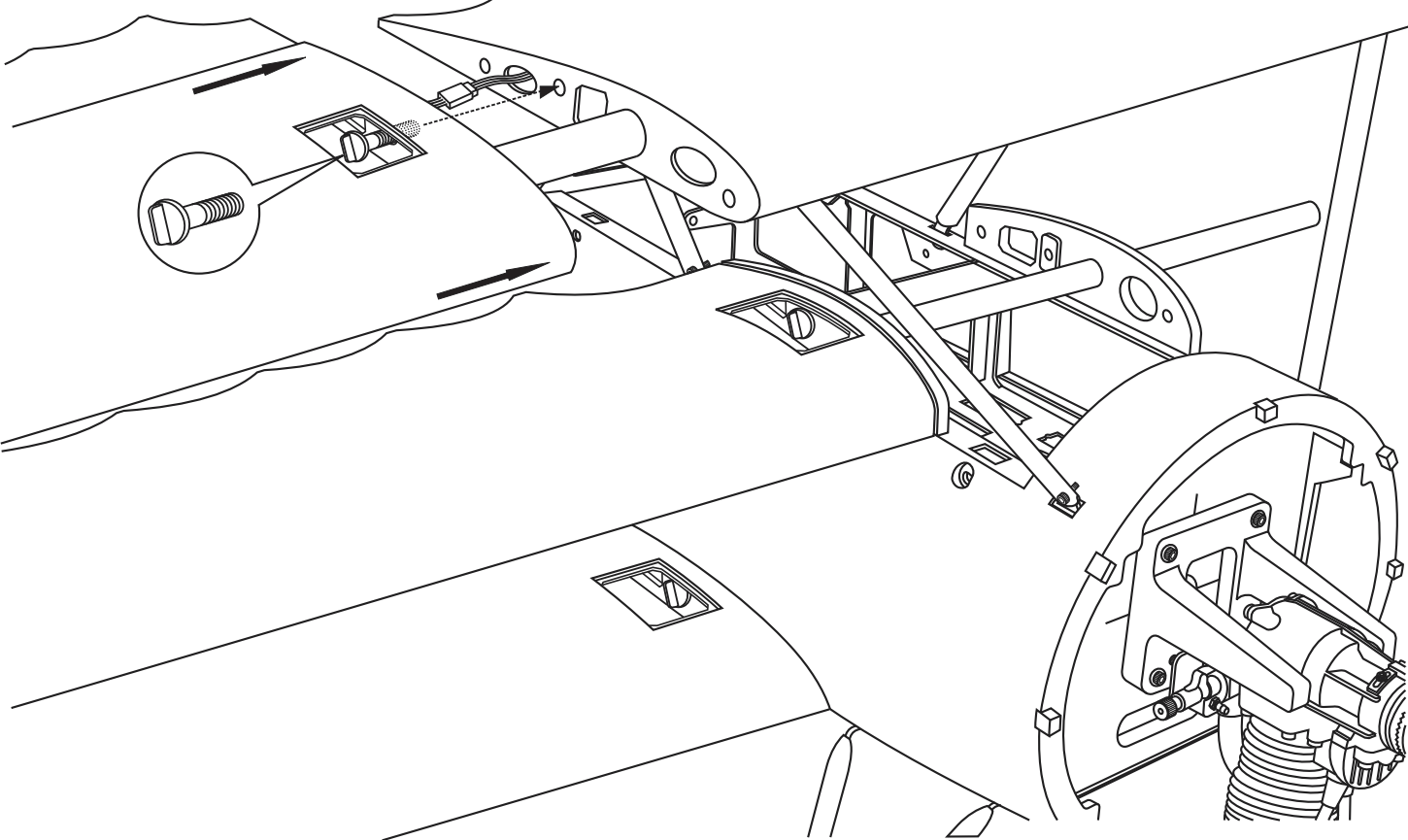
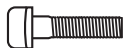


## FOKKER DR1 34- Middle wing installation



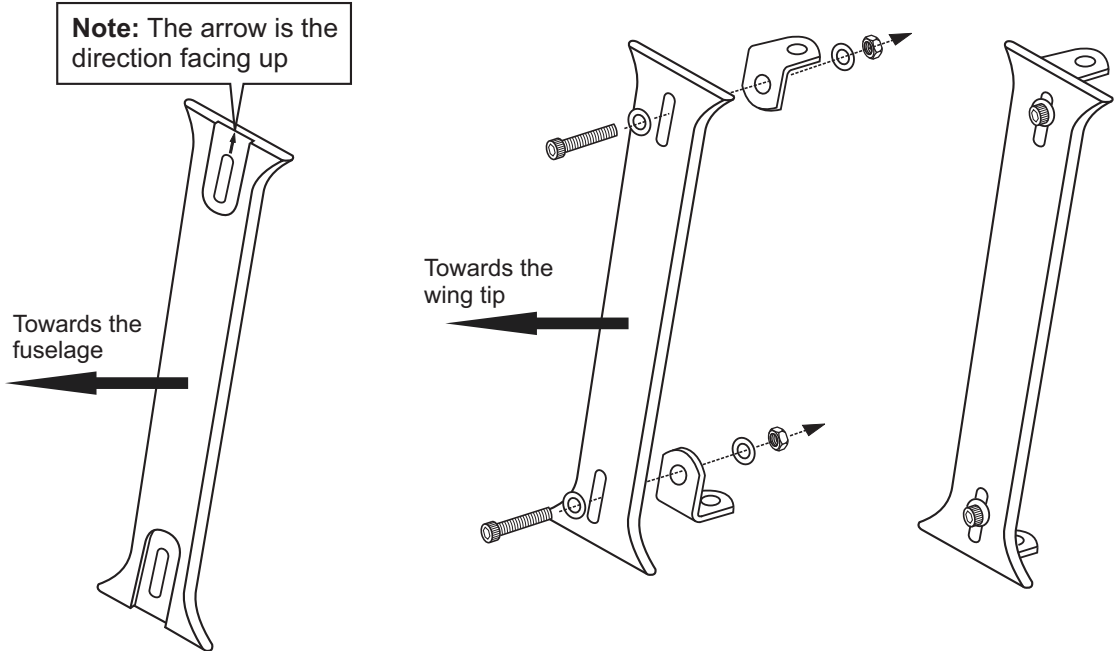
# FOKKER DR1 34- Outer wing installation

Included in hardware bag



# FOKKER DR1 35- Wing brace assembly

**Note:** The arrow is the direction facing up



.....8

3x10mm hex bolt



.....8

3mm washer / nut



.....8

# FOKKER DR1 36- Wing brace installation

3x10mm hex bolt

.....8

3mm washer / nut

.....8

2x8mm screw

.....24

Close all the hatches on the top of all wings using 2x8mm screw.

2x8mm screw



3x12mm hexbolt

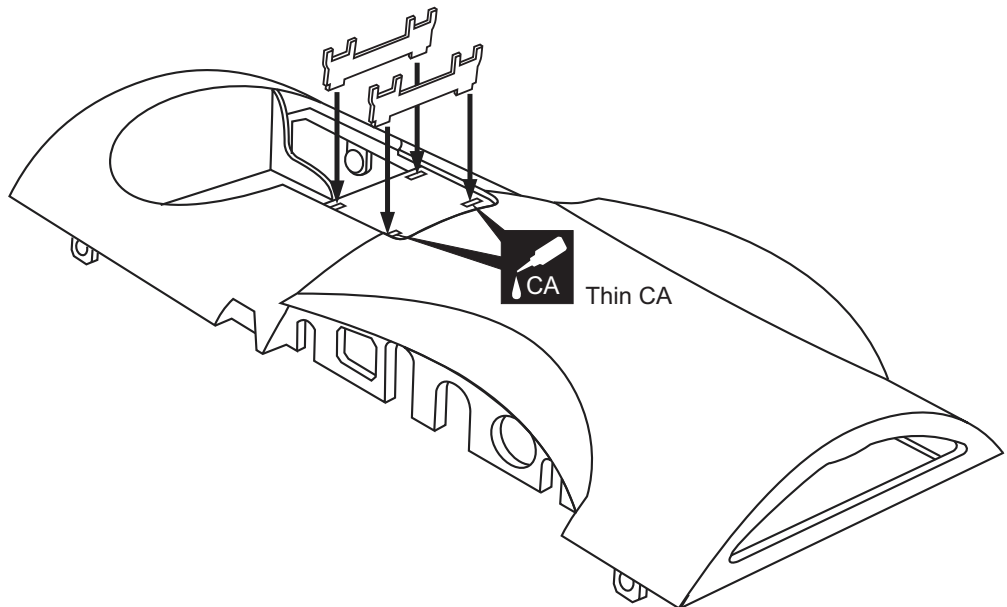
3x12mm hexbolt

3x12mm hexbolt

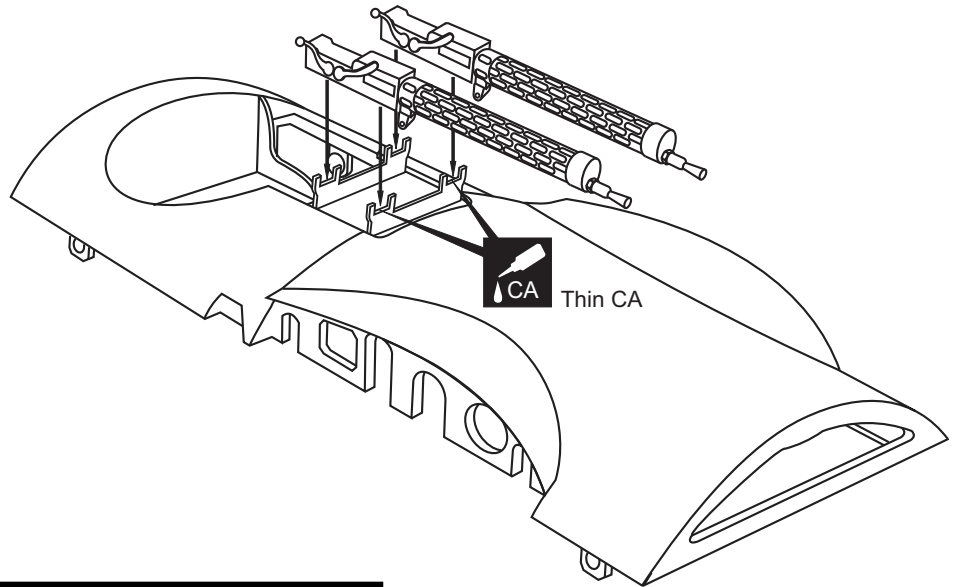
3x12mm hexbolt

Secure the wing struts in place using the 3x12mm hex bolts.

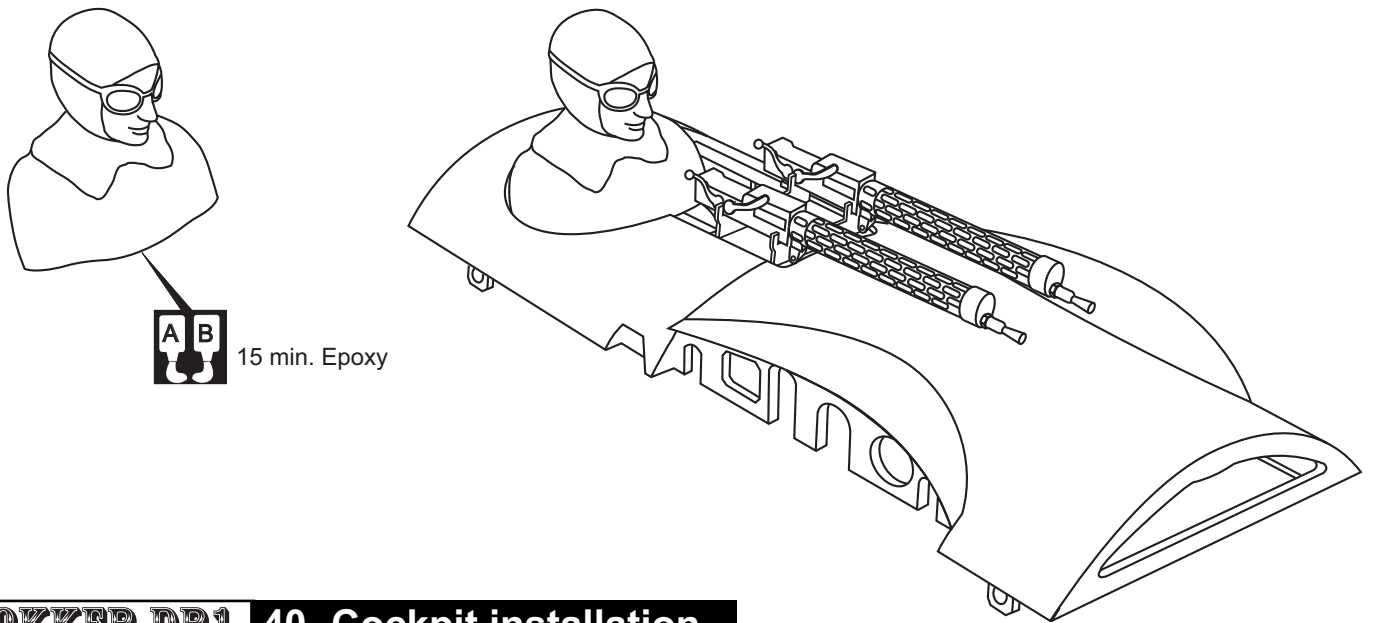
# FOKKER DR1 37- Machine-gun mount installation



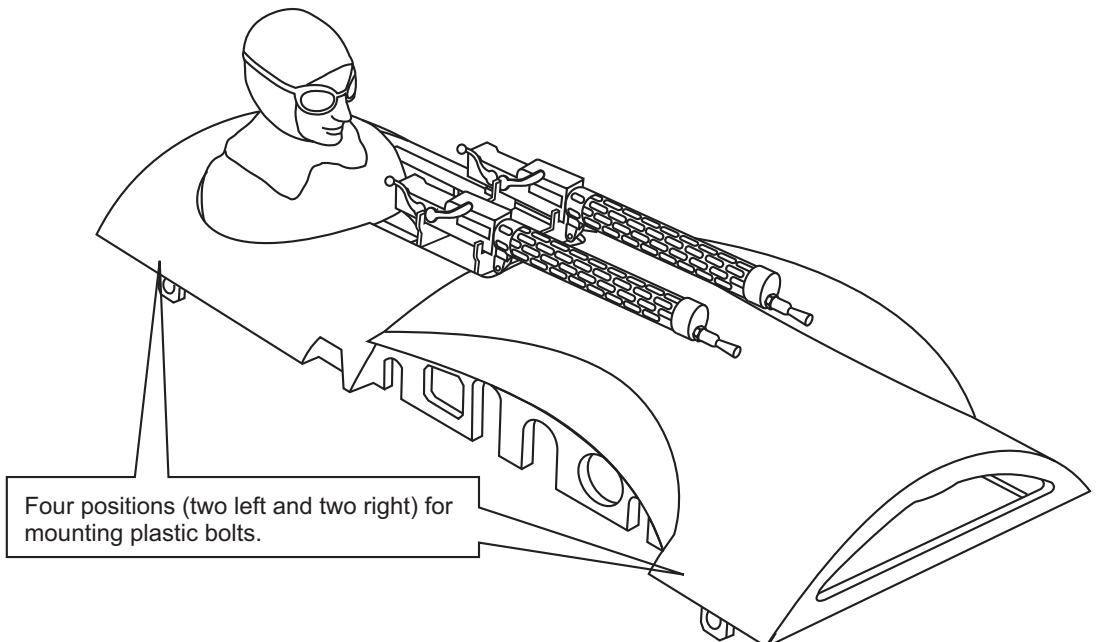
## FOKKER DR1 38- Machine-gun installation



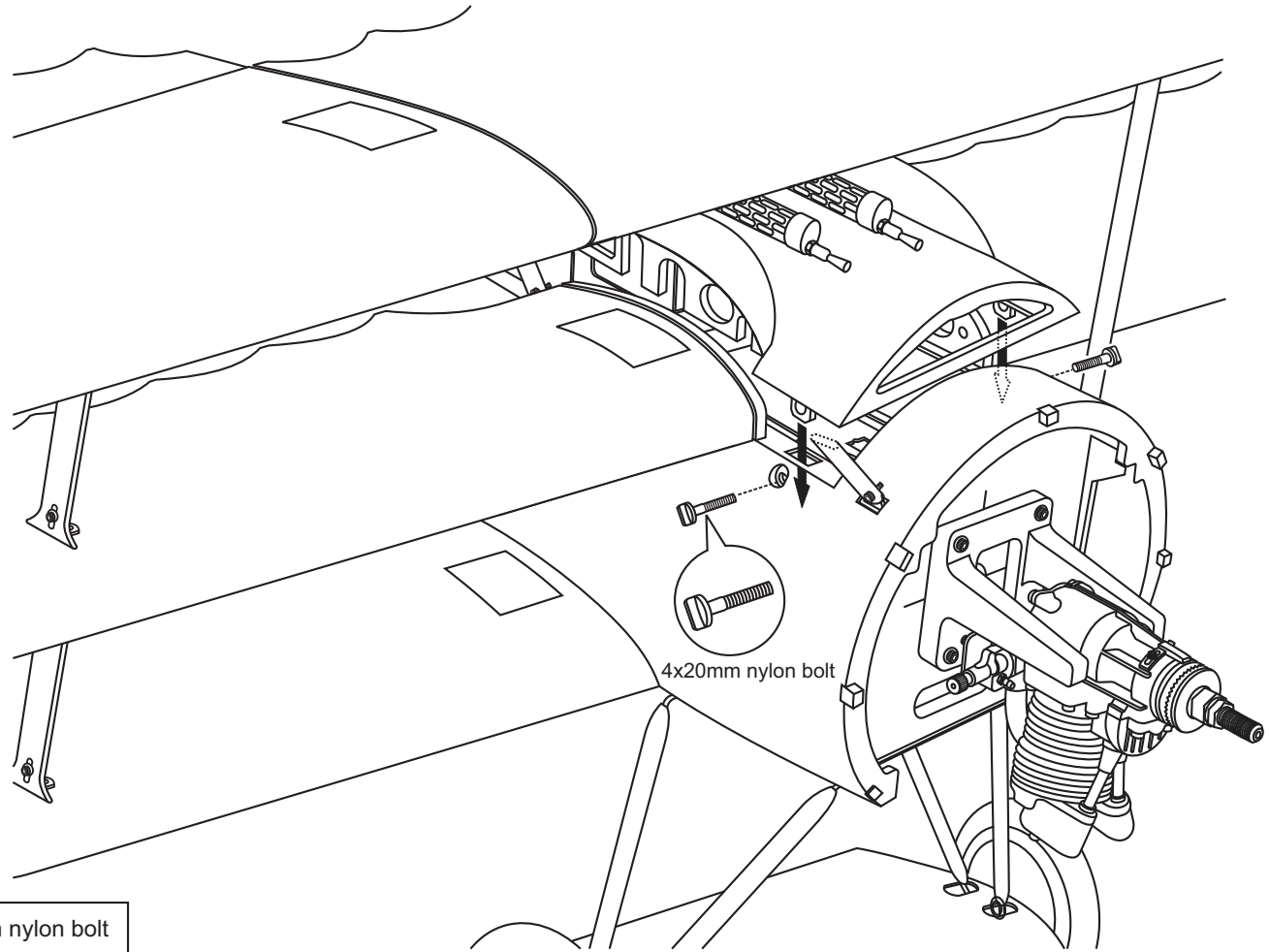
## FOKKER DR1 39- Pilot figure installation




## FOKKER DR1 40- Cockpit installation

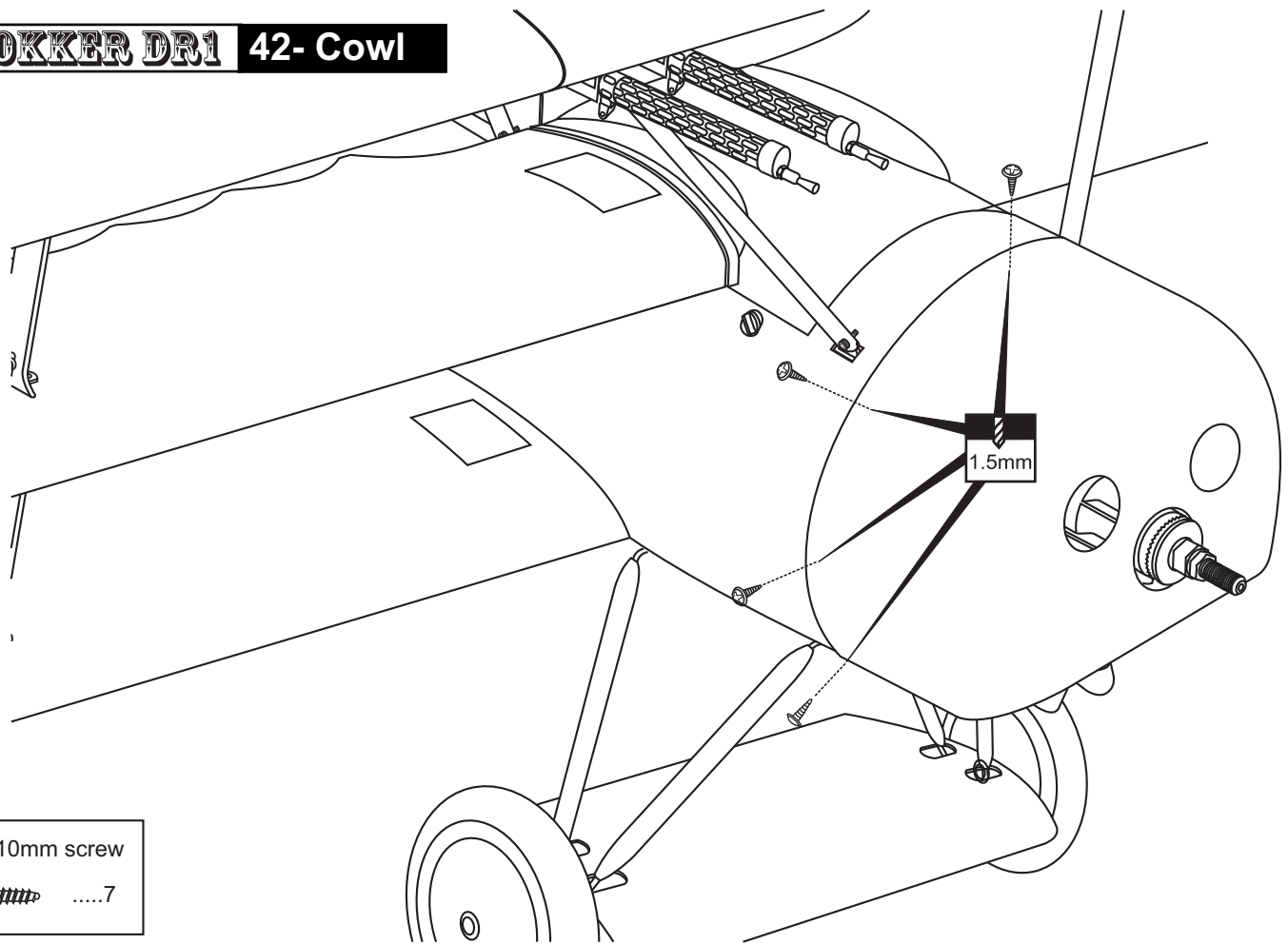



**FOKKER DR1 41- Cockpit installation continued**



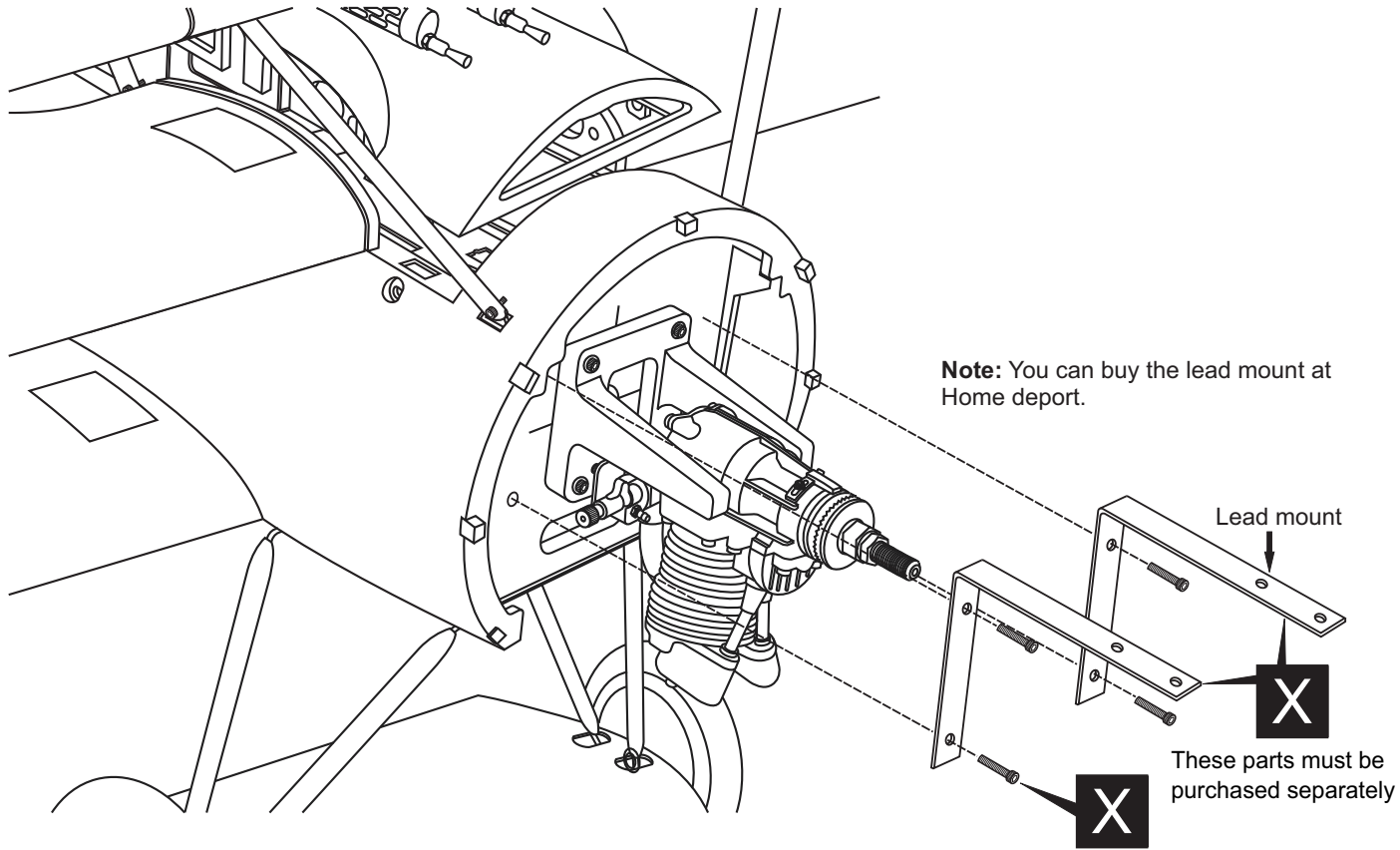
4x20mm nylon bolt  
 ....4

**FOKKER DR1 42- Cowl**

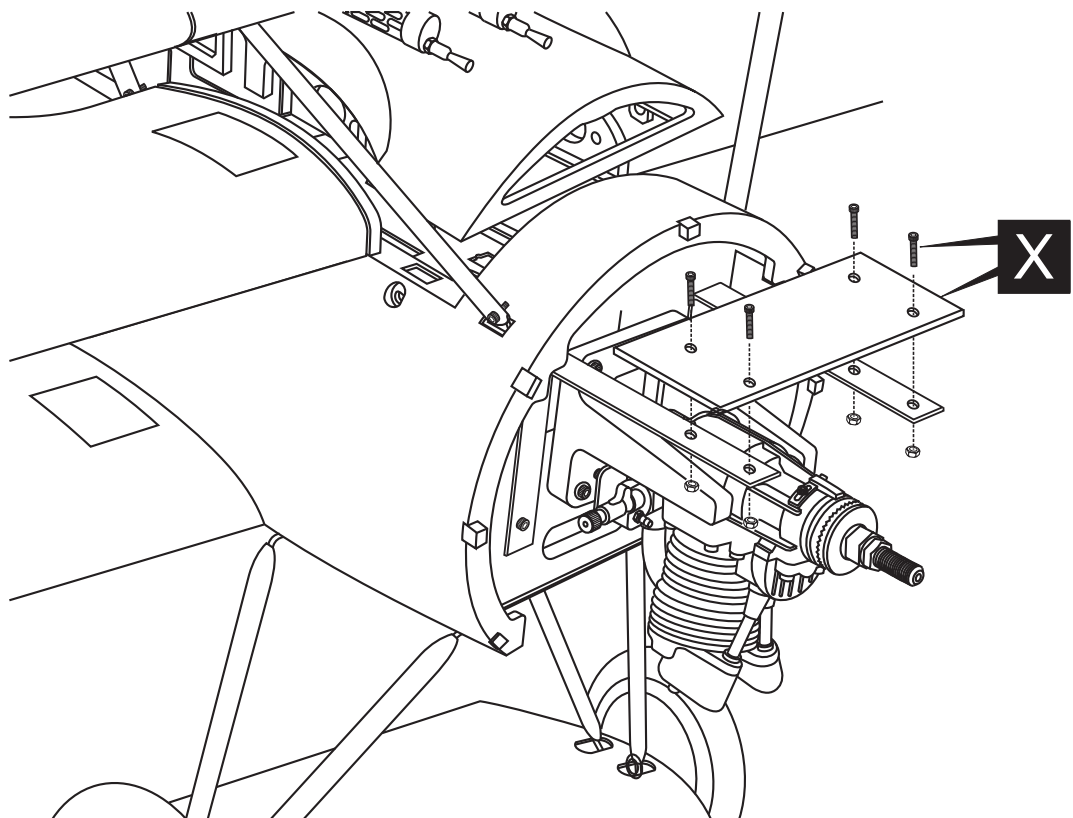


3x10mm screw  
 ....7

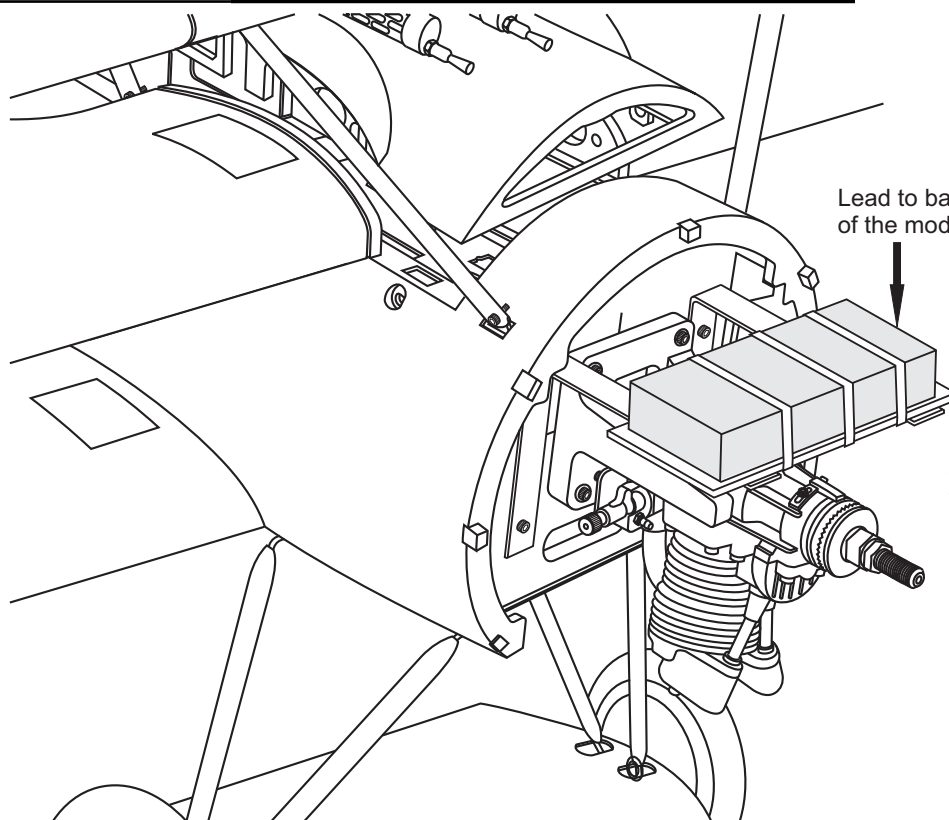
# FOKKER DR1 43- Lead mount



# FOKKER DR1 44- Lead mount continued



## FOKKER DR1 45- Put lead on the lead mount

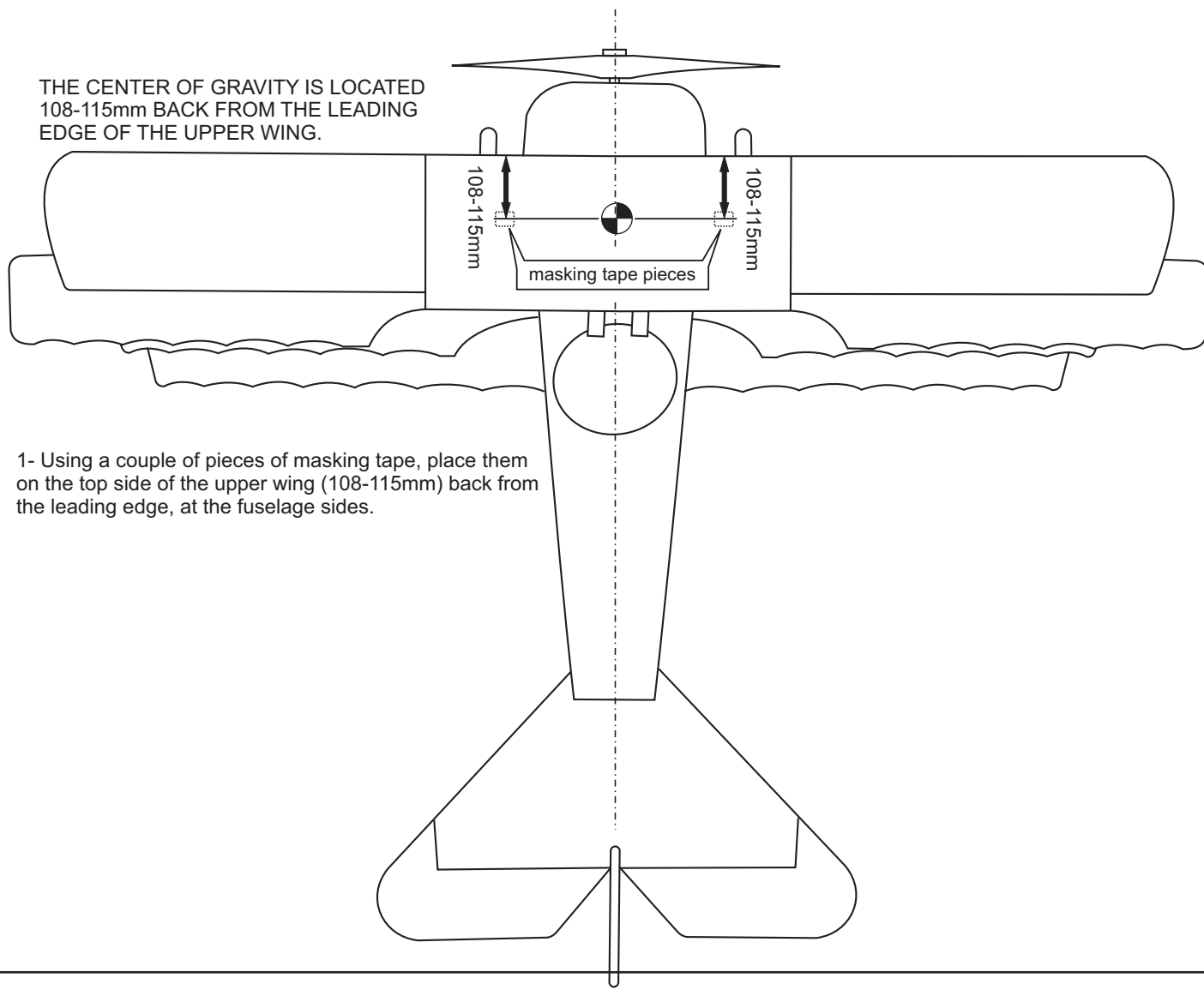


Lead to balance the center of gravity of the model.

Note: The weight of the lead varies depending on the type of the engine you use (from 700 to 1700gr).

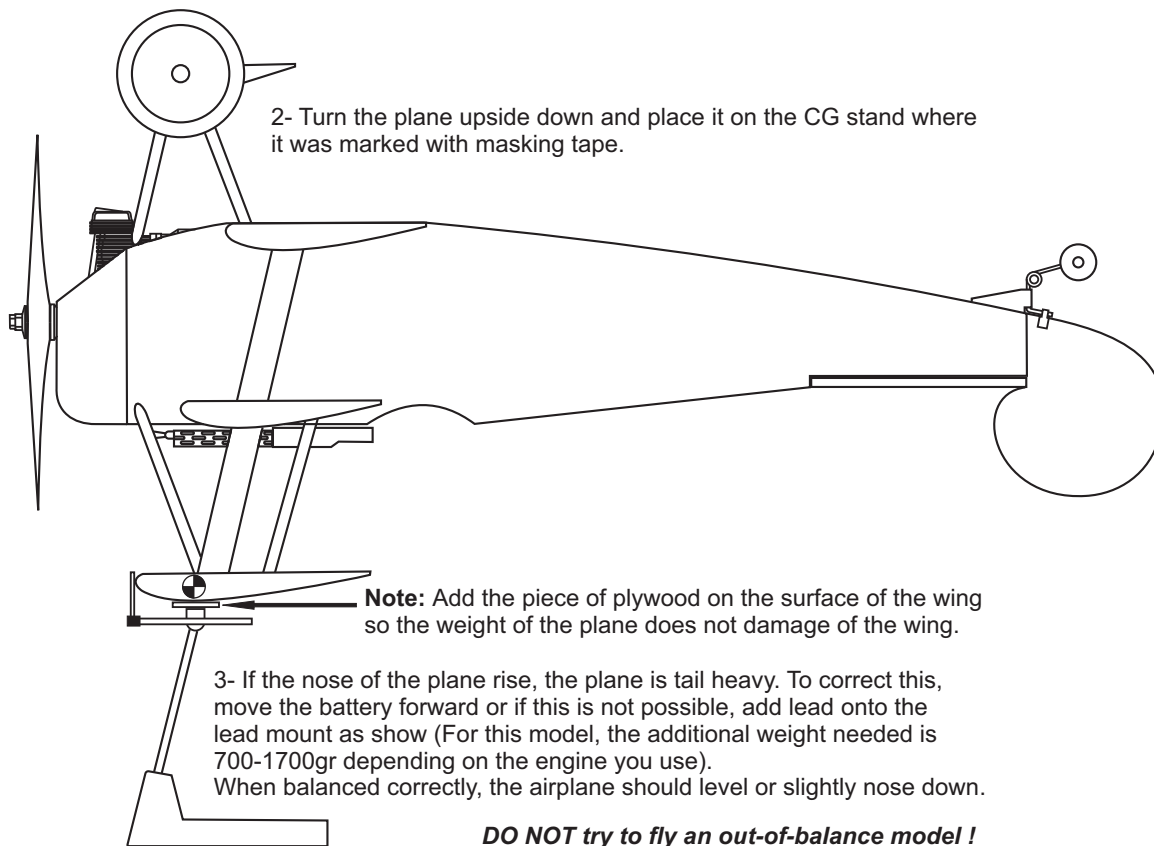
## FOKKER DR1 46- Balance

THE CENTER OF GRAVITY IS LOCATED 108-115mm BACK FROM THE LEADING EDGE OF THE UPPER WING.



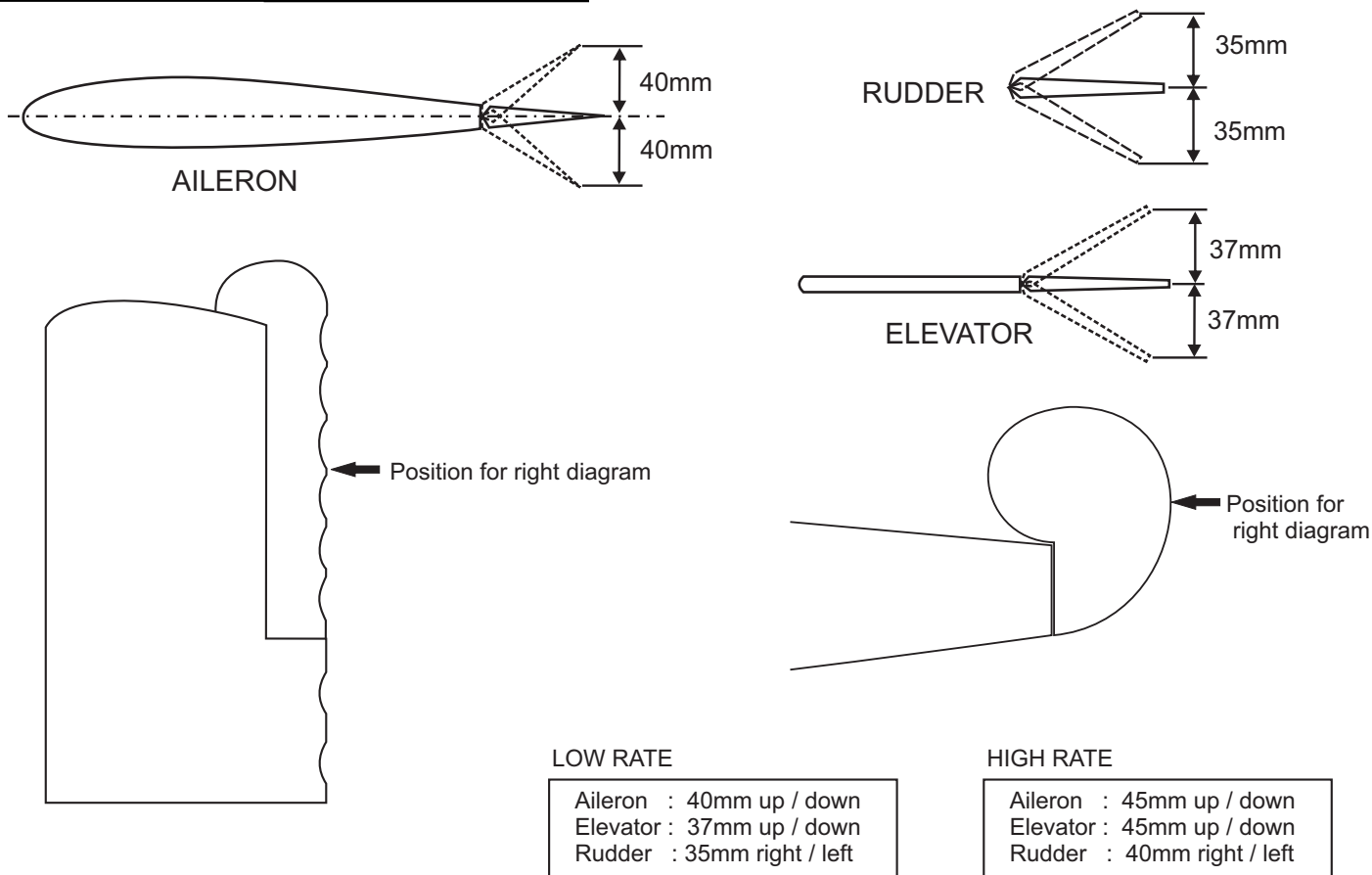
1- Using a couple of pieces of masking tape, place them on the top side of the upper wing (108-115mm) back from the leading edge, at the fuselage sides.

# FOKKER DR1 47- Balance continued



**DO NOT try to fly an out-of-balance model !**

# FOKKER DR1 48- Control surface



**IMPORTANT:** Flying your model at these throws will provide you with the greatest chance for successful first flights. If, after you have become accustomed to the way the Fokker Dr.1 flies, you would like to change the throws to suit your taste that is fine. However, too much control throw could make the model difficult to control, so remember, "more is not always better".