

**45 Class**  
*2-cycle engine*

**70 Class**  
*4-cycle engine*

# FIAT G-59



## TECHNISCHE DATEN

Spannweite	1580mm
Länge	1180mm
Elektroantrieb	870 Watt (PULSAR 60)
Verbrennerantrieb	7.5cc 2-T / 8.5cc 4-T
Fernsteuerung	5 Kanal / 5-6 Servos

## SPECIFICATIONS

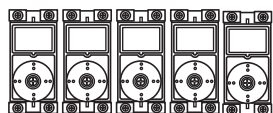
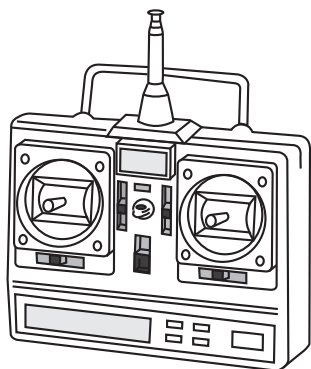
Wingspan	1580mm
Length	1180mm
Electric Motor	870 Watt (PULSAR 60)
Glow Engine	7.5cc 2-T / 8.5cc 4-T
Radio	5 Channel / 5-6 Servos



**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.

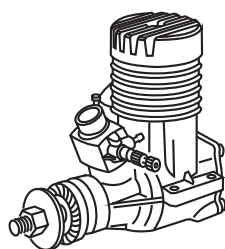
## REQUIRED FOR OPERATION (Purchase separately)



Minimum 5 channel radio  
for airplane with 5 servos  
.Motor control x1 .Aileron x2  
.Elevator x1 .Rudder x1



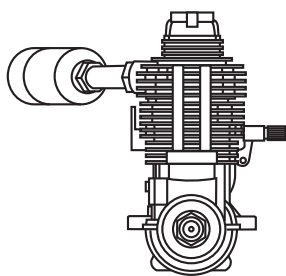
10.5x6 for .40 - 2 cycle engine  
11x6 for .46 - 2 cycle engine  
12x6 for .60 - 4 cycle engine  
12x7 for .70 - 4 cycle engine  
13x6 for Electric motor



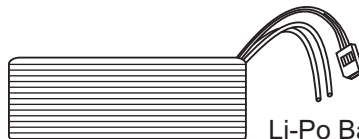
.46 ~ .50 - 2 cycle



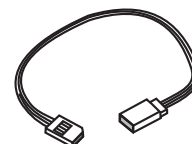
Silicone tube



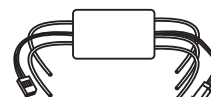
.60 ~.70 - 4 cycle



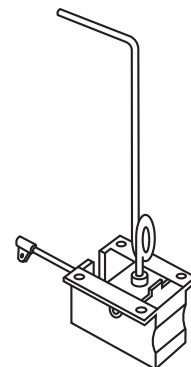
Li-Po Battery, 14.8V, 4000mAH, 80A



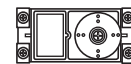
Extension for aileron  
servo, retract servo.



Motor Control



Retract landing  
gear VQAR04



Retract servo  
x1



Linkage Stopper x2  
(for retract servo)

## GLUE (Purchase separately)



Silicon sealer

Cyanoacrylate  
Glue



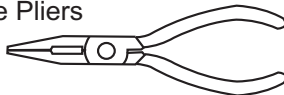
Epoxy Glue ( 5 minute type)  
Epoxy Glue (30 minute type)

## TOLLS REQUIRED (Purchase separately)

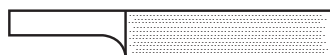
Hobby knife



Needle nose Pliers



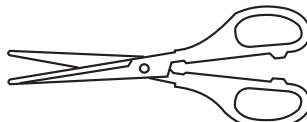
Sander



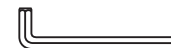
Phillip screw driver



Scissors



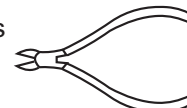
Hex Wrench



Awl



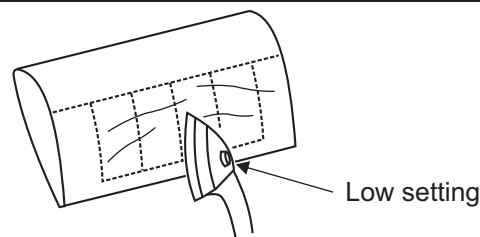
Wire Cutters



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

The pre-covered film on ARF kit may wrinkle due to variations of temperature. Smooth out as explained right.

\* Use an iron or heat gun. Start as low setting. Increase the setting if necessary. If it is too high, you may damage the film



Symbols used throughout this instruction manual, comprise:



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



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

**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"	

## 1- Retract landing gear / Fahwerk

Trial fit the push rod into the wing. Join the pushrod to the retract gear arm and trial fit the retract into the wing.

After checking that the retract works smoothly, fix the retract on the wing with 3x12mm screws

**L/R**

Retract pushrod  
Fahrwerkkanlenkgestänge

Steel clevis

.....2

3x12mm screw

.....8

**Bottom view  
Ansicht von unten**

3x12mm screw  
3x12mm schraube

2mm

## 2- Aileron servo / Querruder servo

**Bottom view / Ansicht von unten**

Aileron extension cord  
Servoverlängerkabel

Plastic control horn

.....2

2x20mm screw  
.....4

**Top view / Ansicht von Oben**



40mm

15mm

Aileron servo  
Querruder servo

Included with the  
radio set

2mm

## 3- Joining the wing / Fläche

Use epoxy glue to bury the opening  
Nehmen Sie Epoxyleber, um die  
Tragflächen fest miteinander zu Verbinden  
und streifen Sie den herausquellenden  
Kleber nach dem Verbinden mit einem  
fusselfreien Tuch SOFORT ab!



Secure one end of the aileron  
extension cord with adhesive tape

**Top view / Ansicht von Oben**

Wing joiner  
Tragflächenverbinde

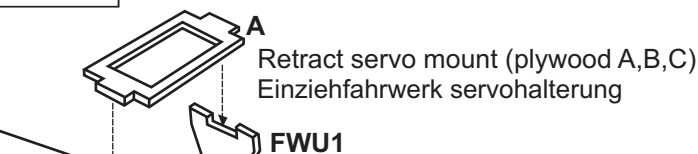
Center line

- 1- Using a pencil, mark the center of the brace.
- 2- Trial fit the wing joiner into one of the wing panels. It should insert smoothly up to the center line marked above.
- 3- Slide the other wing half onto the dihedral brace until the wing panel meet. If the fit is over tight, it may be necessary to lightly sand the dihedral brace.
- 4- Check for the correct dihedral angle.
- 5- Mix approximately 30 minute epoxy and apply a generous amount of epoxy into the wing joiner cavity of one wing half.
- 6- Coat one half of the dihedral brace with epoxy up to the center line. Install the epoxy-coated side of the dihedral brace into the wing joiner cavity up to the center line, marking sure that the "V" of the dihedral brace is positioned correctly
- 7- Do the same way with the other wing half.
- 8- Carefully slide the wing halves together, ensuring that they are accurately aligned. Firmly press the two halves together, allowing the excess epoxy to run out. Clear off the excess epoxy.

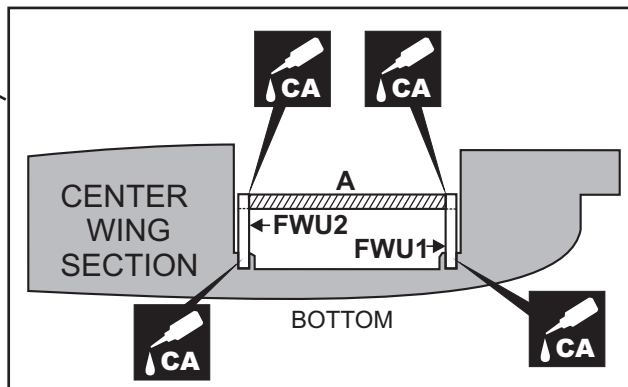
**WARNING: Please do not clean off the excess epoxy on the wing with strong solvent or pure alcohol, only use kerosene to keep the colour of your model not fade.**

#### 4- Servo mount / Servohalterung

Schneiden Sie etwas Folie weg  
Cut away only the covering

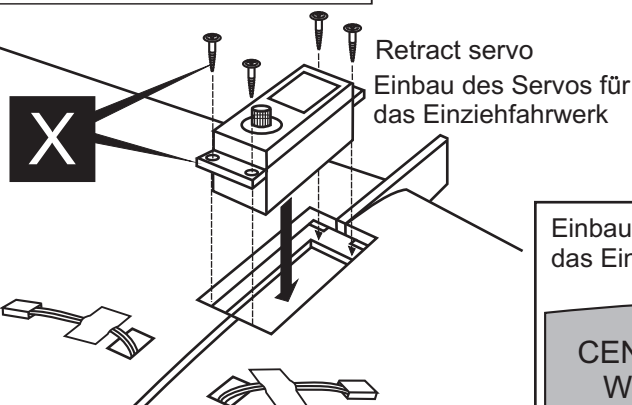


Top view / Ansicht von Oben



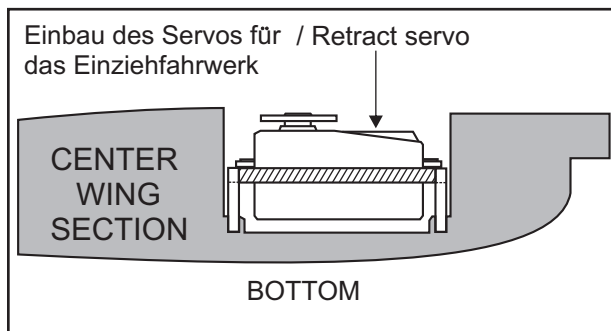
#### 5- Retract servo / Einziehfahrwerk servo

Install the retract servo onto the retract servo mount and secure it in place with four screw (included with radio set).



Top view / Ansicht von Oben

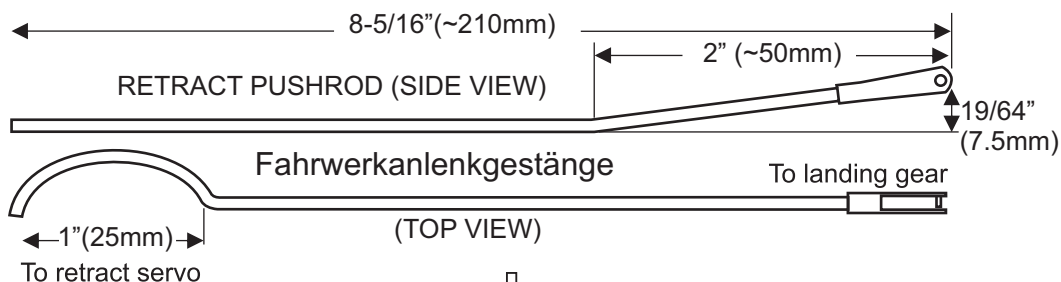
Einbau des Servos für / Retract servo  
das Einziehfahrwerk



#### 6- Linkages / Ruderanlenkung

Instruction how to build in the retracting landing gear  
(This Gear is OPTIONAL)

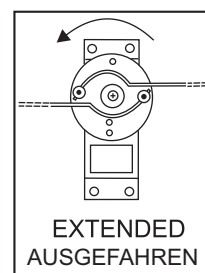
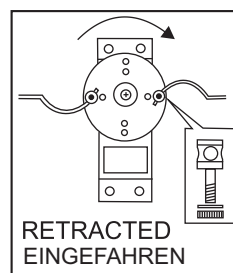
Einbauhilfe bei Anbringen eines  
Einziehfahrwerks (Optional  
bestellbar; nicht im Baukasten  
enthalten!)



Top view / Ansicht von Oben

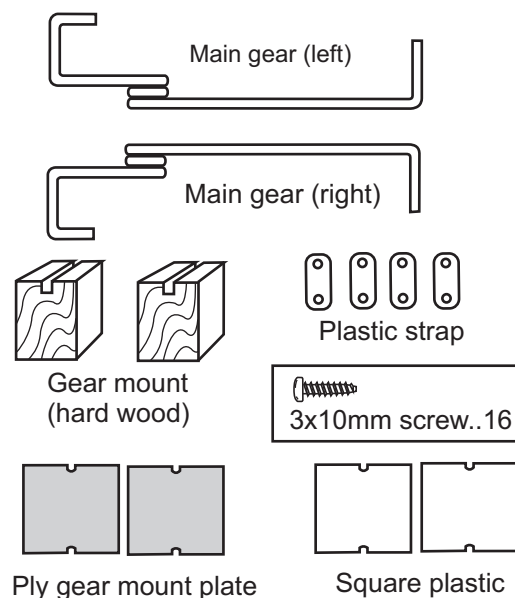
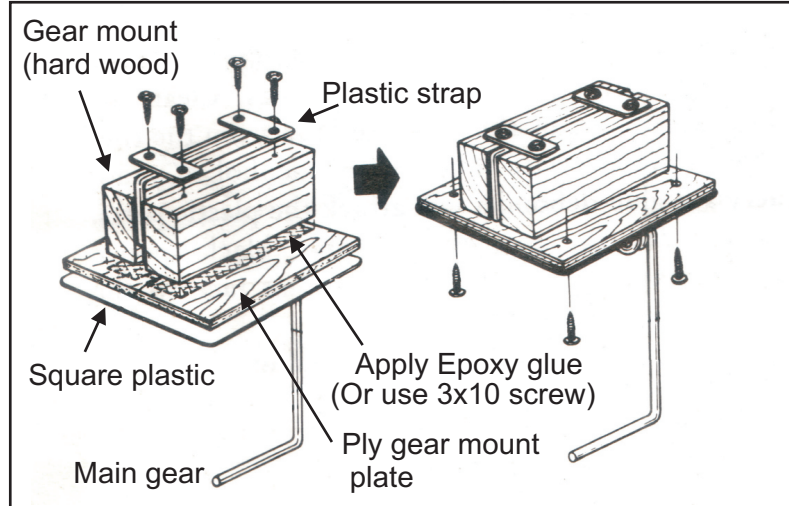
With the retract and retract servo in the retracted position, mark the position where each of the pushrod will attach to the servo arm, a small piece of masking tape works well for this. Cut off the excess length each rod.

Link the servo and retract gear arm with push rod. Be sure to adjust the stroke so that the landing gear locks in both up and down position.

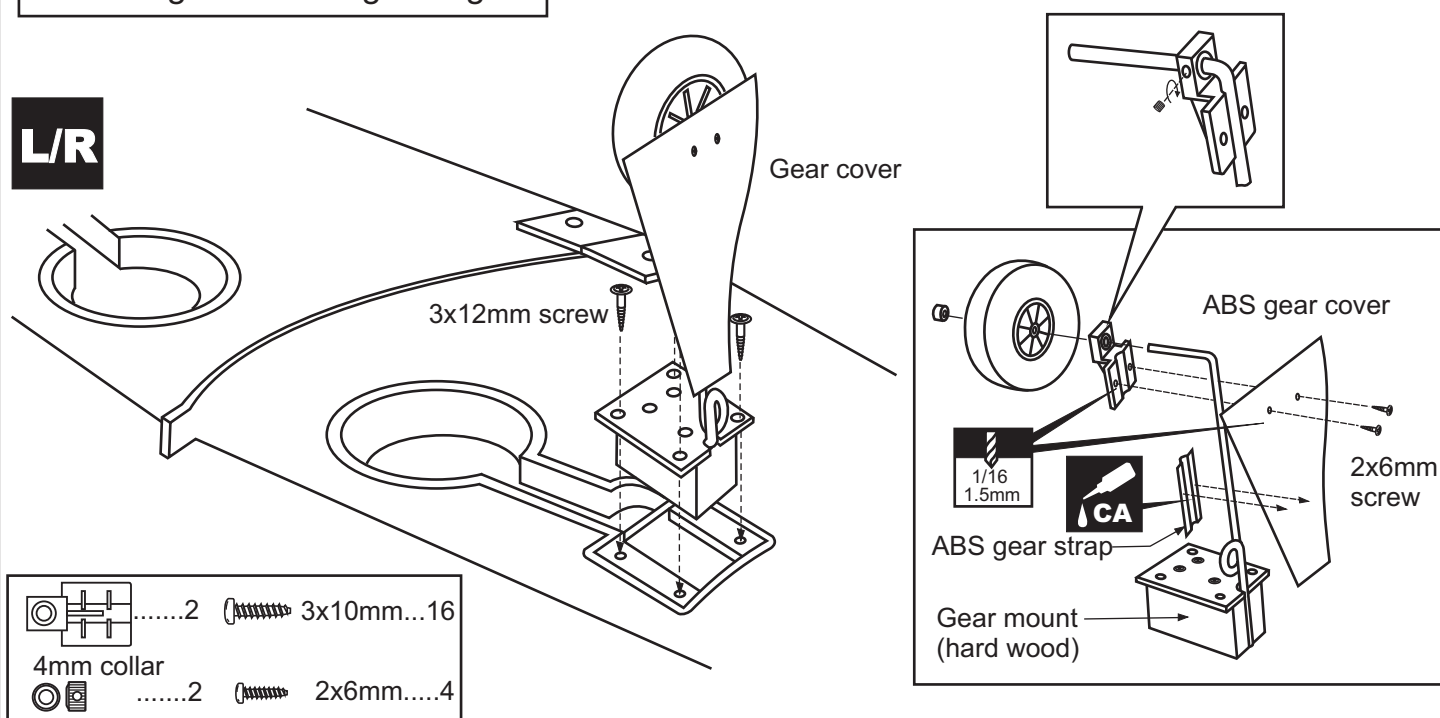




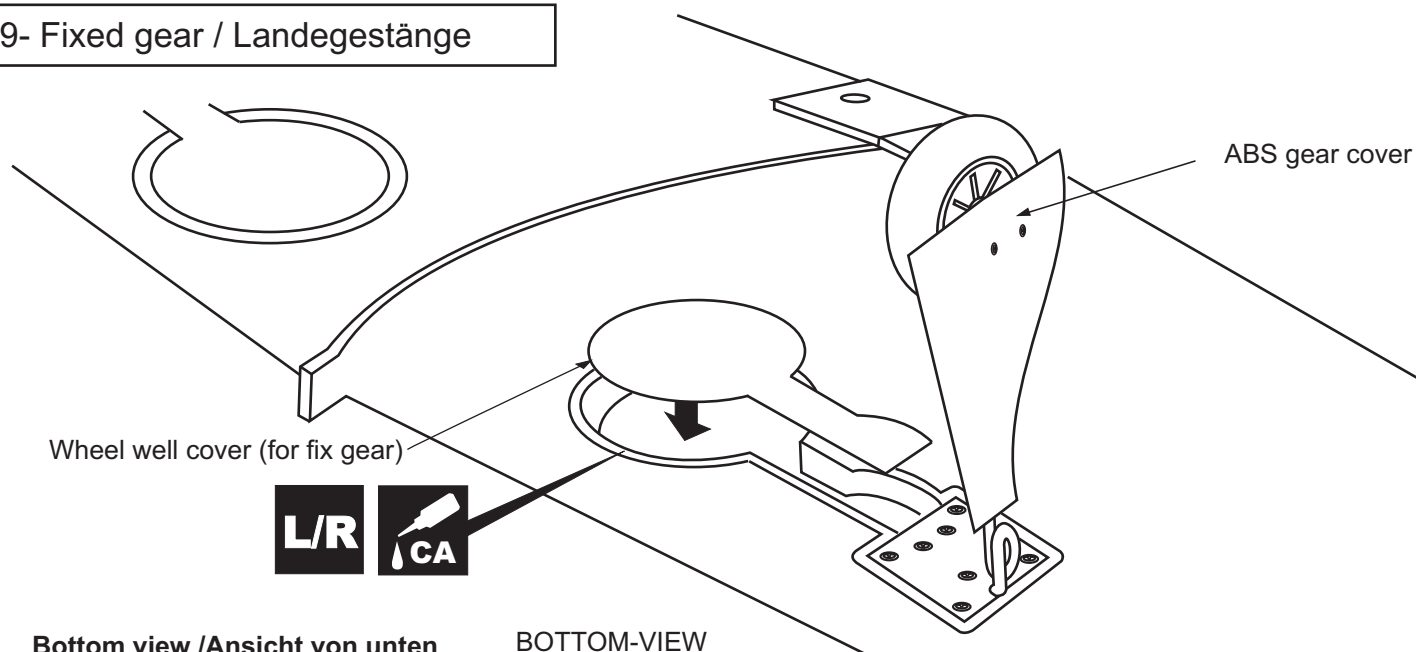
## 7- Fixed gear / Landegestänge



### 8- Fixed gear / Landegestänge



## 9- Fixed gear / Landegestänge



**Bottom view /Ansicht von unten**

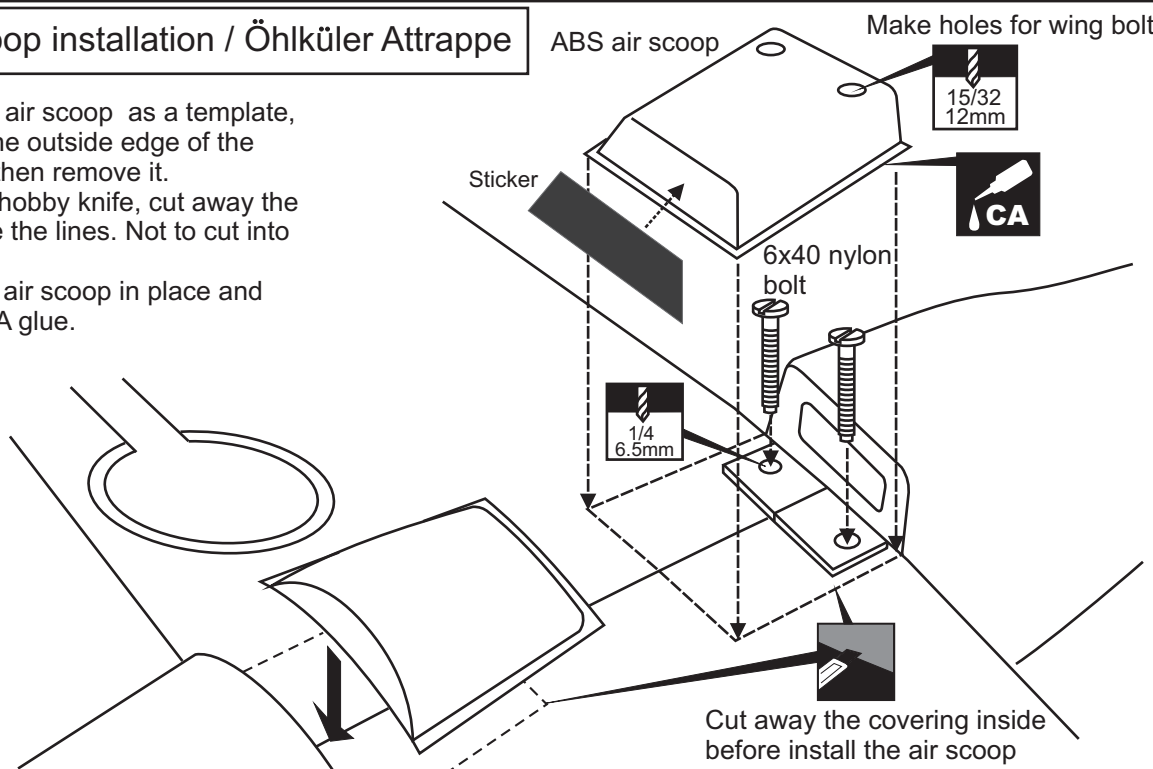
BOTTOM-VIEW

## 10- Air scoop installation / Öhlküler Attrappe

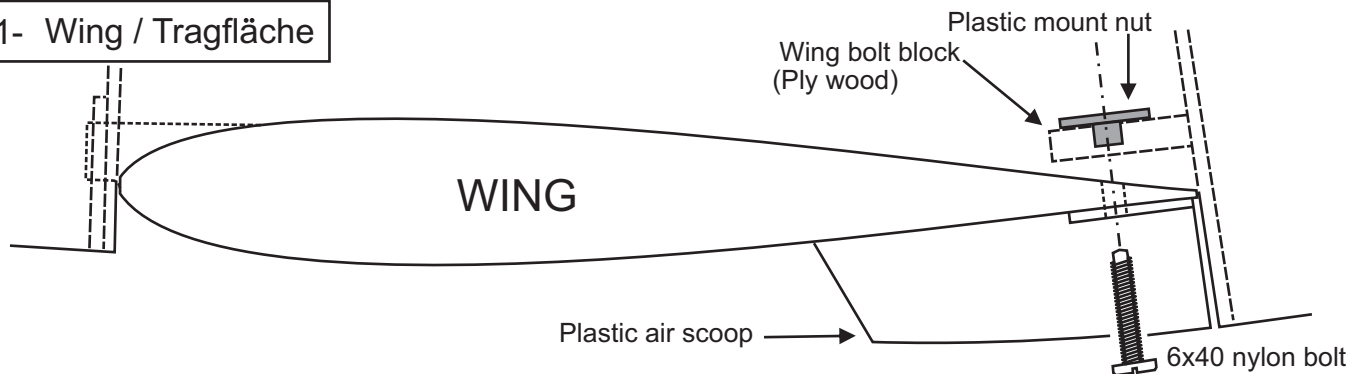
Using the ABS air scoop as a template, trace around the outside edge of the air scoop and then remove it.

Using a sharp hobby knife, cut away the covering inside the lines. Not to cut into the wood.

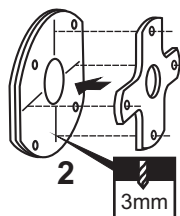
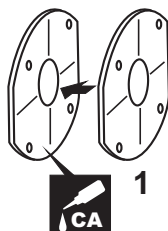
Apply the ABS air scoop in place and secure with CA glue.



## 11- Wing / Tragfläche



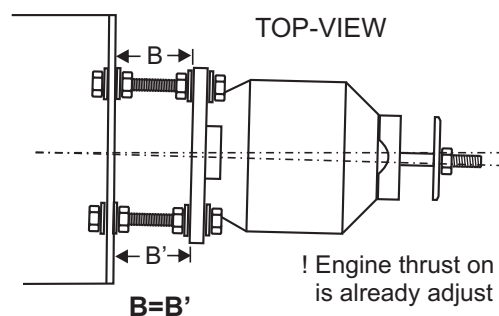
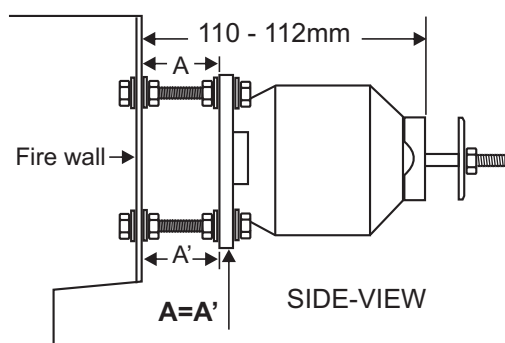
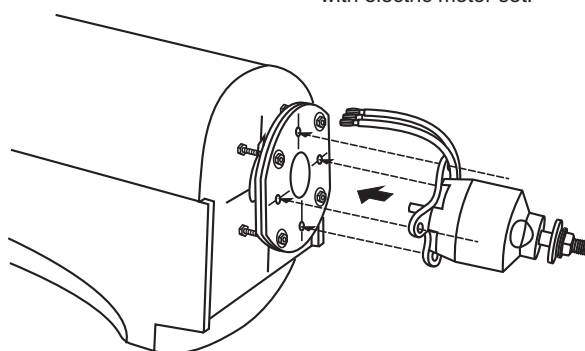
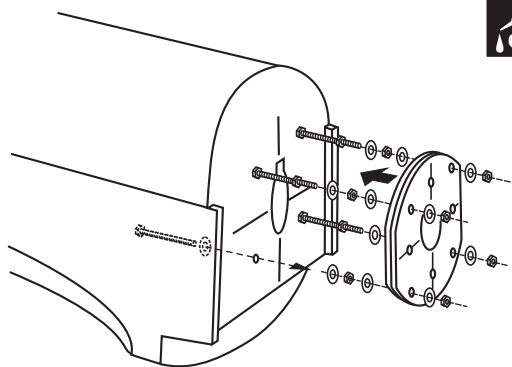
## 12- Brushless Motor



Using an aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled (2).

Remove the aluminum motor mounting plate and drill a 1/8"(3mm) hole through the plywood at each of the four marks marked.

Note: The aluminum motor mounting included with electric motor set.



### 13- Engine mount / Motorträger

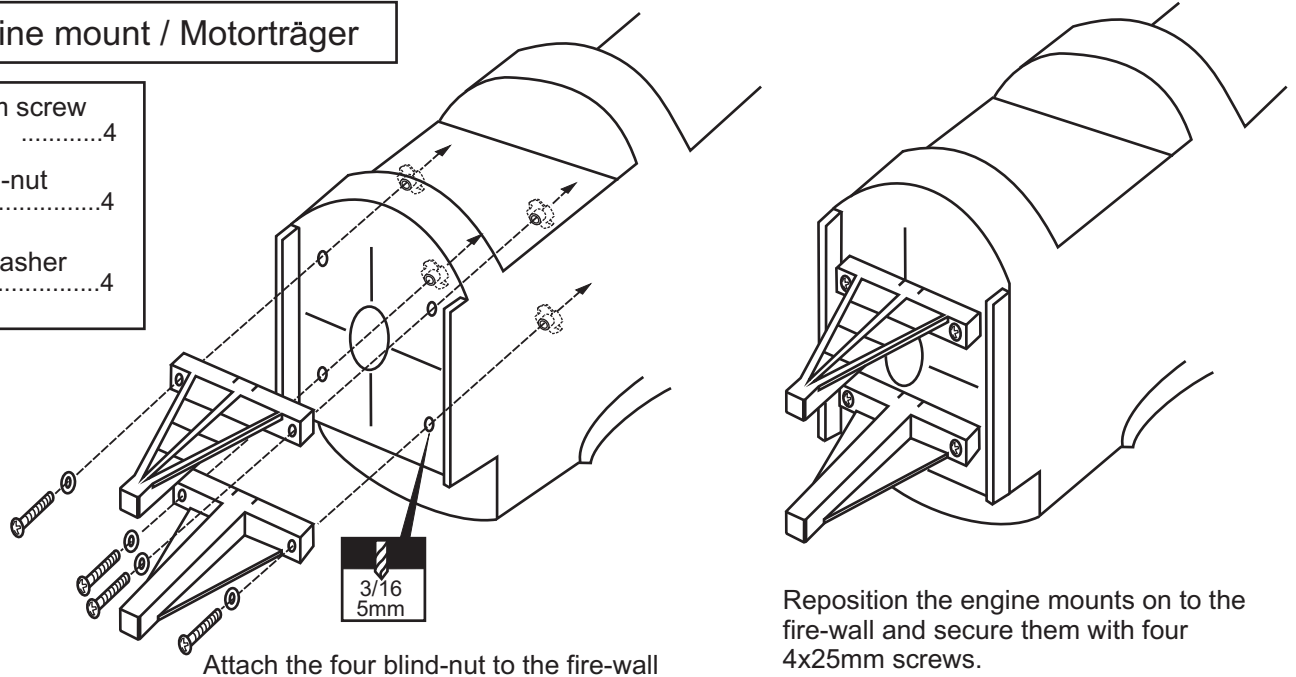
4x15mm screw



Blind-nut



4mm washer



Attach the four blind-nut to the fire-wall

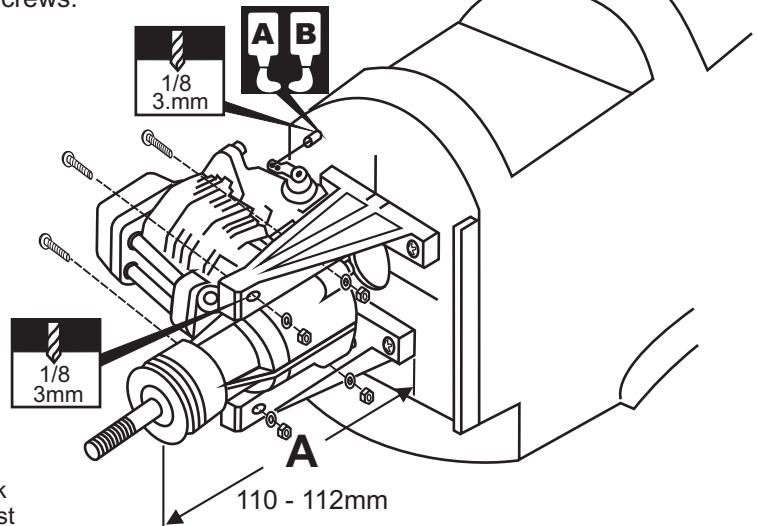
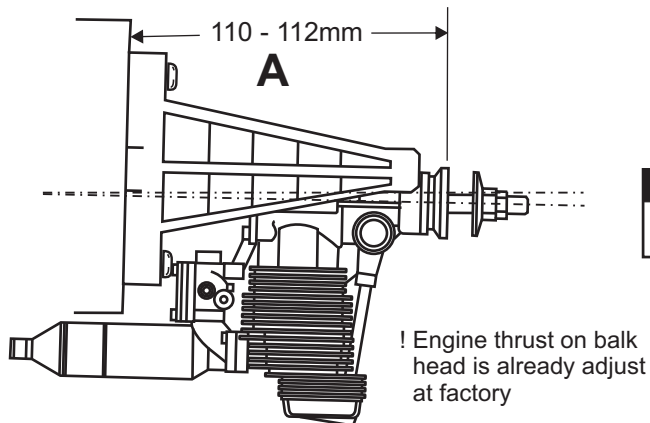
Reposition the engine mounts on to the fire-wall and secure them with four 4x25mm screws.

### 14- Engine (four stroke)

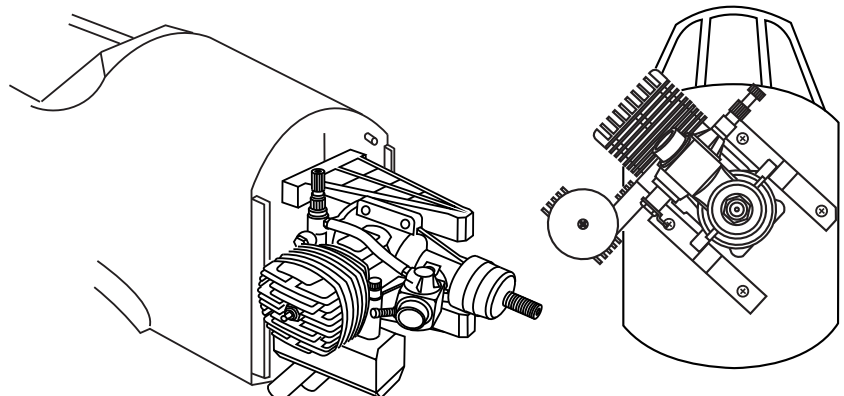
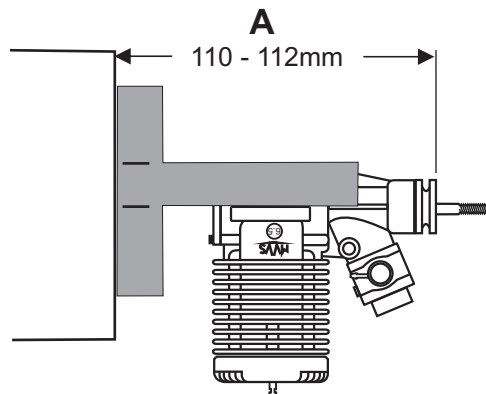
3x20mm screw / washer / nut



Reposition the engine on to the engine mounts and secure it with four 3x20mm screws.



### 15- Engine (two stroke)

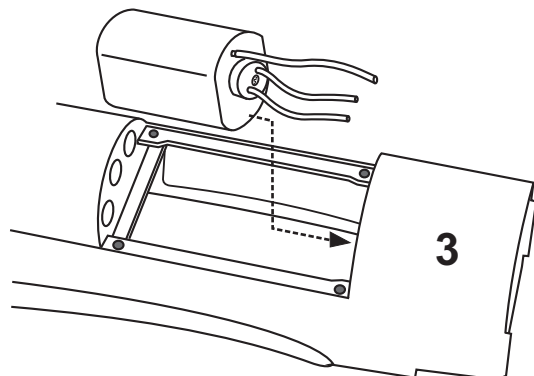
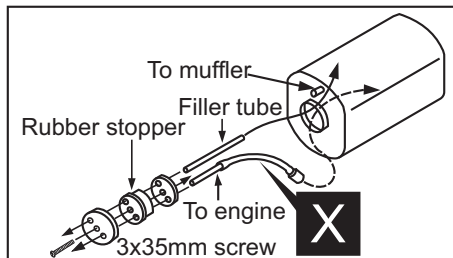


Determine the angle for the engine mounts so the muffler will not contact the fuselage

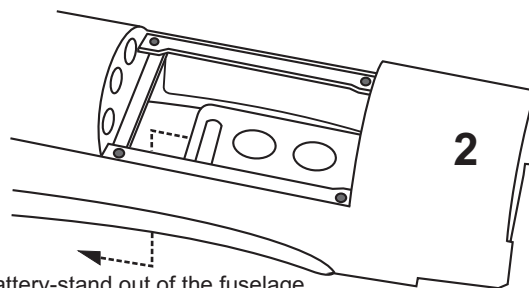
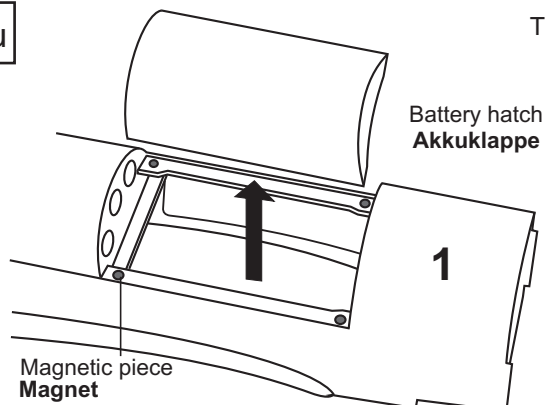
With hang silencer

With side silencer

## 16- Fuel tank installation / Tankeinbau

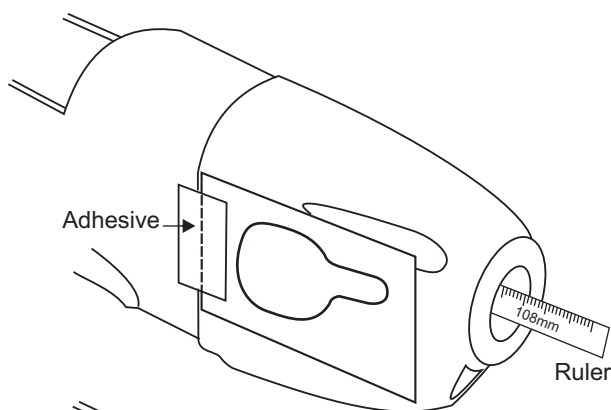
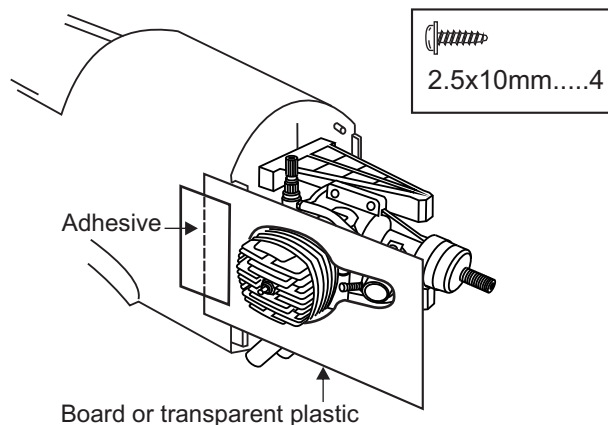


TOP VIEW Draufsicht



Remove the battery-stand out of the fuselage.

## 17- Cowling installation / Motorhaube

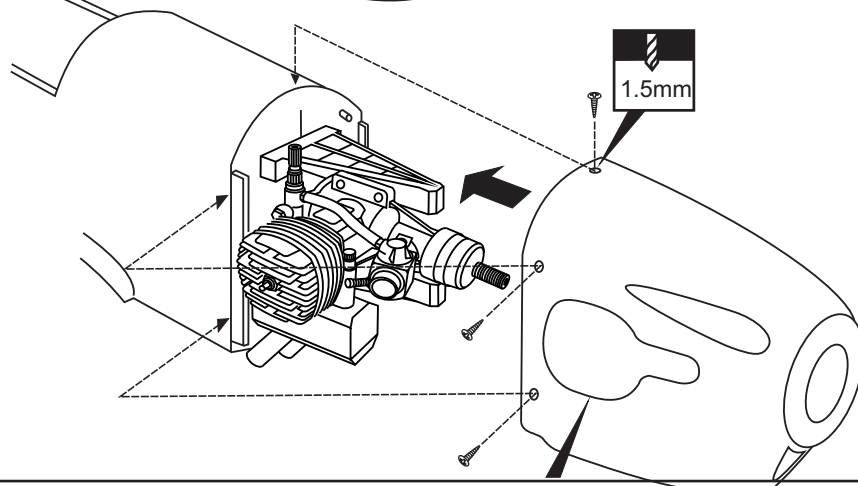
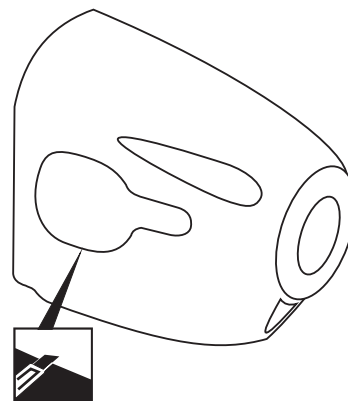
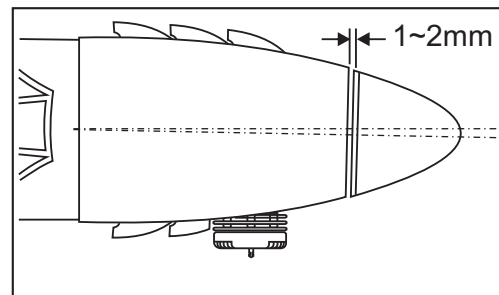


Attach the board or transparent plastic on the side of the fuselage with the adhesive as show. Using a pencil or felt tipped pen trace around the engine head where it meet the cowl. Cut the opening the board or transparent plastic for the engine head as marked before.

Remove the engine and insert the cowl on to the fuselage so the distance from the fire wall to the front of the cowl is 108 - 110mm.

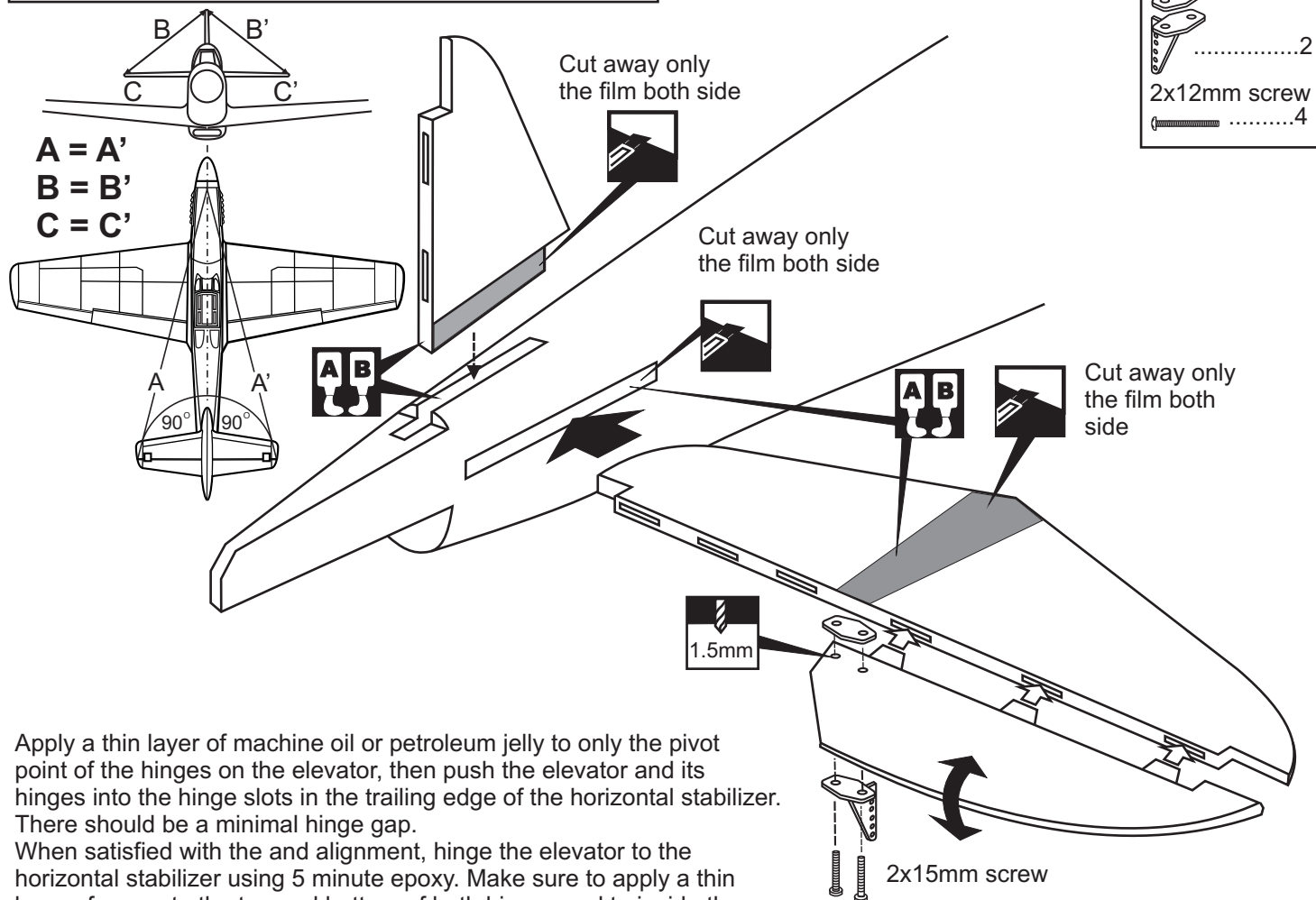
Remove the cowl from the fuselage and carefully cut the opening for the engine head as marked above. Do the same way with the hole for needle-valve.

Again. Insert the cowl on to the fuselage and secure it in place with five 2x5mm screws.



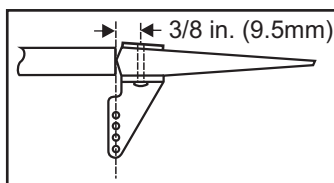
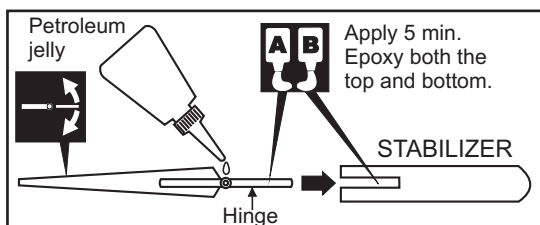


## 18- Vertical and Horizontal Tail / Leitwerk



Apply a thin layer of machine oil or petroleum jelly to only the pivot point of the hinges on the elevator, then push the elevator and its hinges into the hinge slots in the trailing edge of the horizontal stabilizer. There should be a minimal hinge gap.

When satisfied with the and alignment, hinge the elevator to the horizontal stabilizer using 5 minute epoxy. Make sure to apply a thin layer of epoxy to the top and bottom of both hinges and to inside the hinge slots. Repeat the previous procedures to hinge the second elevator to the other side of the horizontal stabilizer.



**STEP 1:** Installing the stabilizer (A=A' and C=C')

**STEP 2:** Installing the vertical fin (B=B')

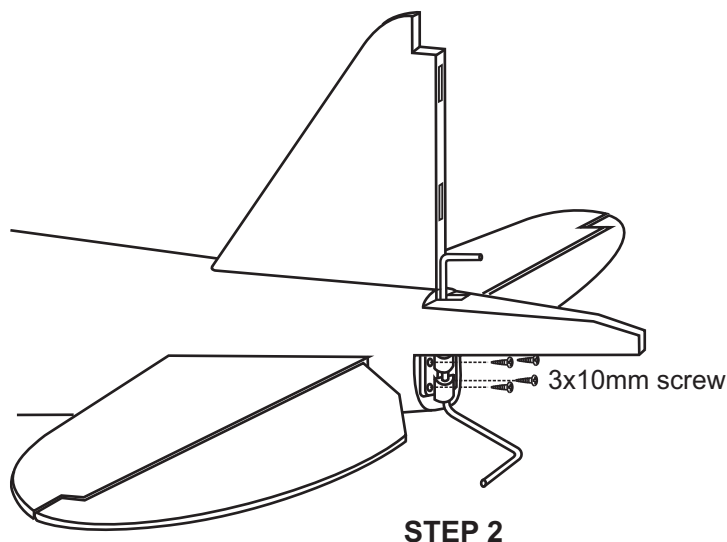
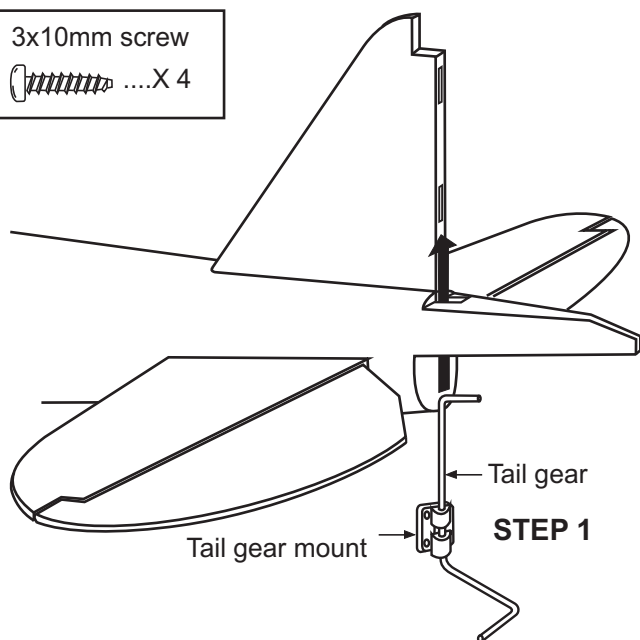
**STEP 3:** Installing the elevator (after the epoxy cured)

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

## 19 Tail gear installation / Heckfahrwerk

3x10mm screw

.....X 4

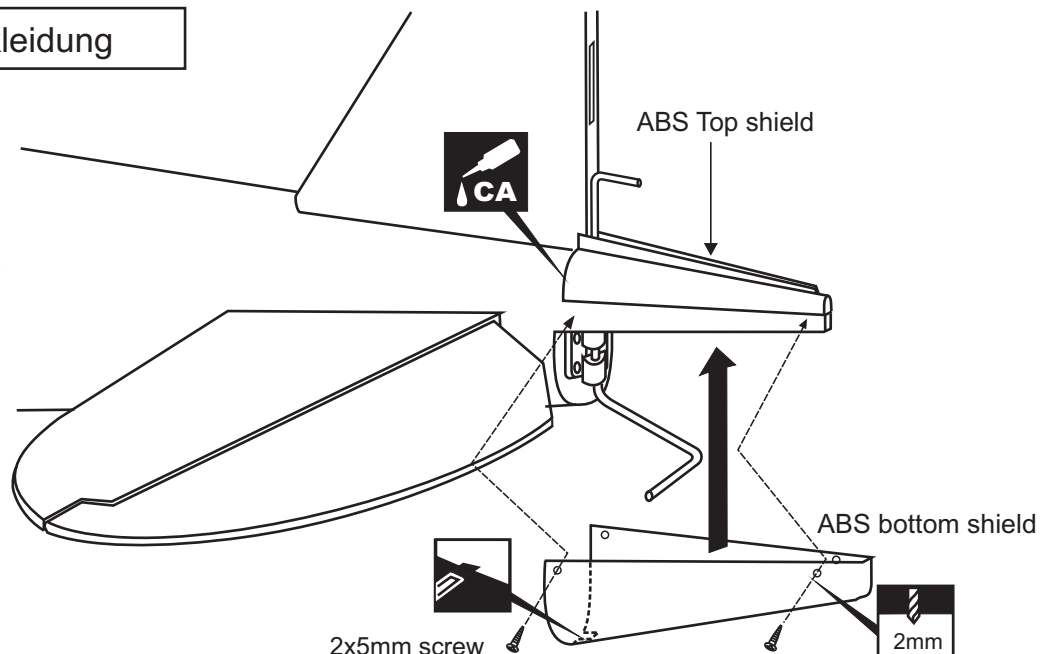


## 20- ABS Shield / ABS Verkleidung

2x5mm screw

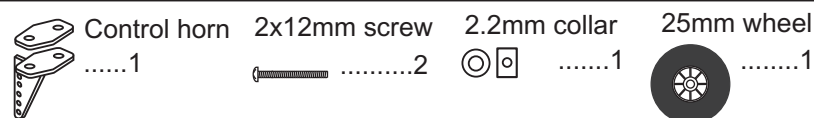
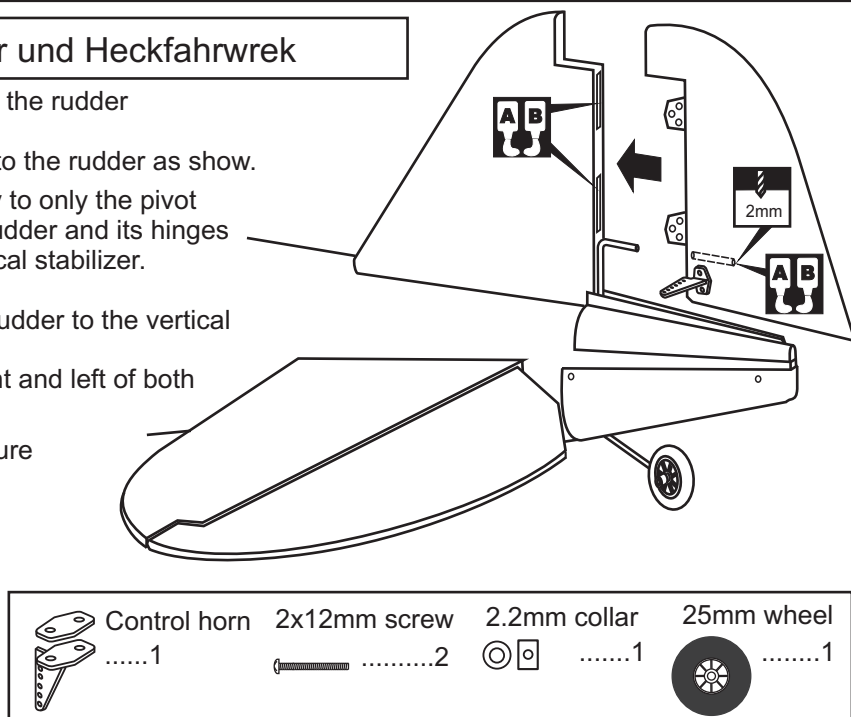
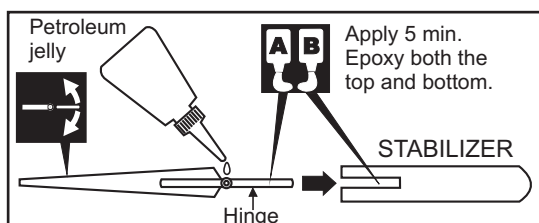


- Attach the ABS top shield in place and secure it with CA glue
- Attach the ABS bottom shield in place and secure it with four 2x5mm screws.

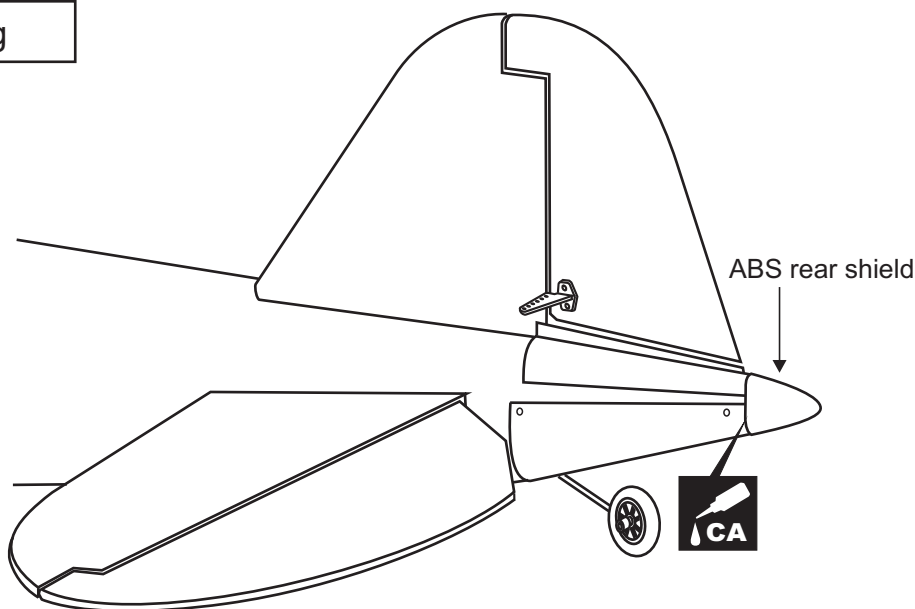
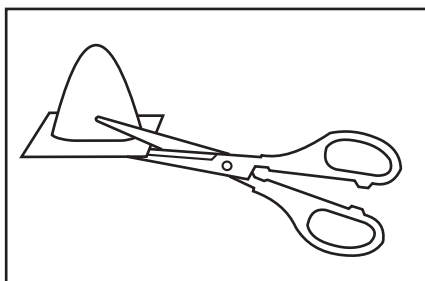


## 21 Rudder and tail wheel / Seitenruder und Heckfahrwerk

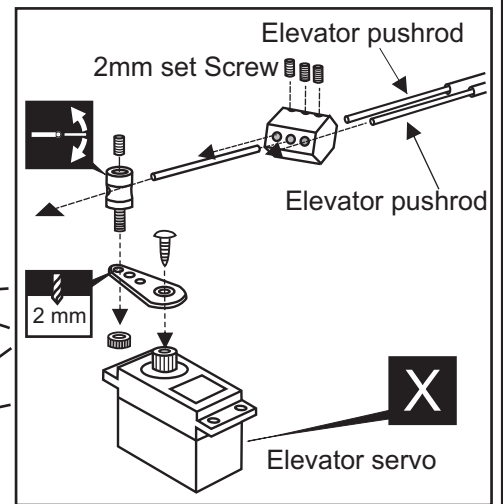
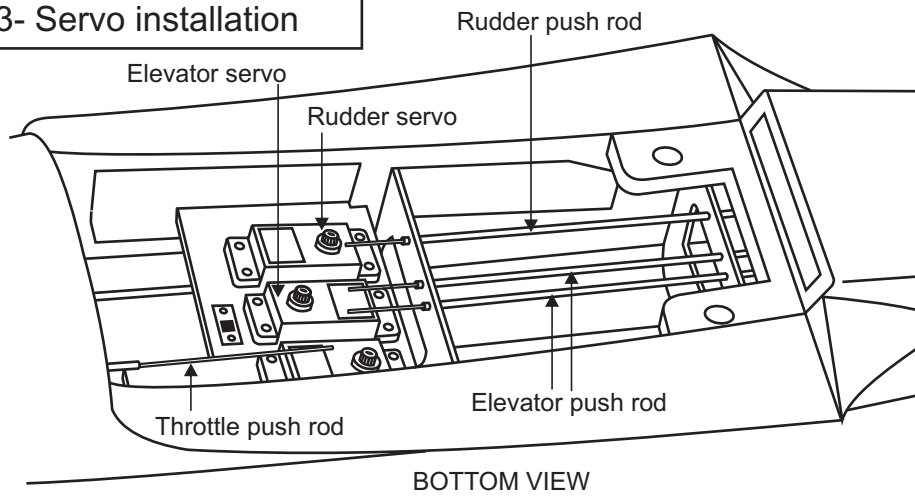
- Trial fit the rudder in position, using a pencil, mark the rudder where the hole is to be drilled.
- Remove the rudder and drill a 5/64" (2mm) hole into the rudder as show.
- Apply a thin layer of machine oil or petroleum jelly to only the pivot point of the hinges on the rudder, then push the rudder and its hinges into the hinge slots in the trailing edge of the vertical stabilizer. There should be a minimal hinge gap.
- When satisfied with the alignment, hinge the rudder to the vertical stabilizer using 5 minute epoxy.
- Make sure to apply a thin layer of epoxy to the right and left of both hinges and to inside the hinge slots.
- Slide the tail wheel onto the tail landing gear. Secure it in place using 2mm wheel collar.



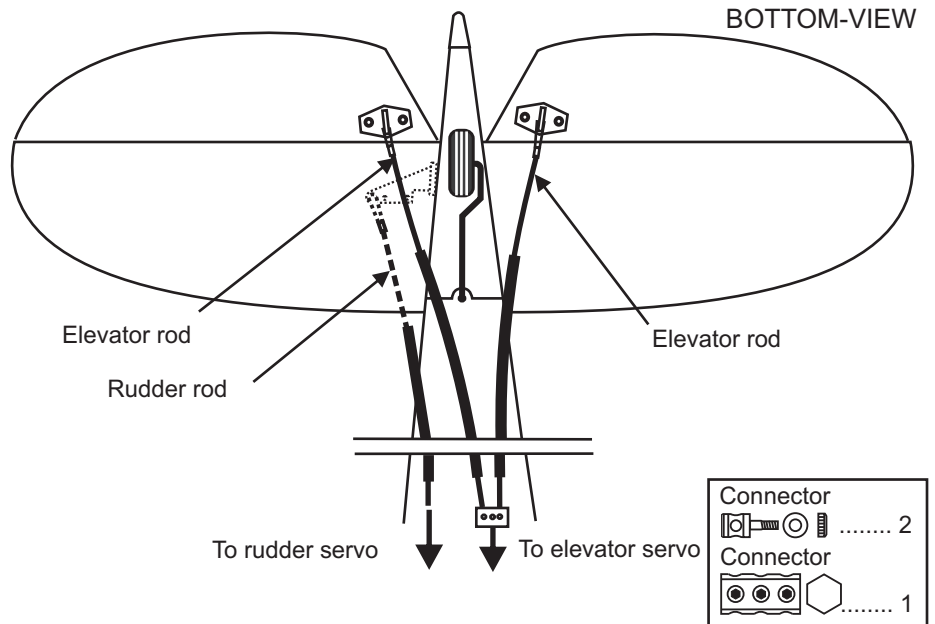
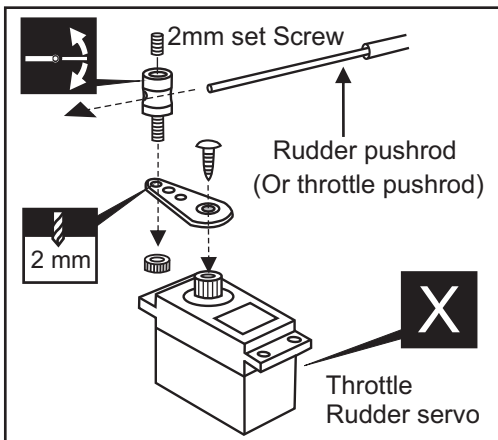
## 22- ABS Shield / ABS Verkleidung



## 23- Servo installation

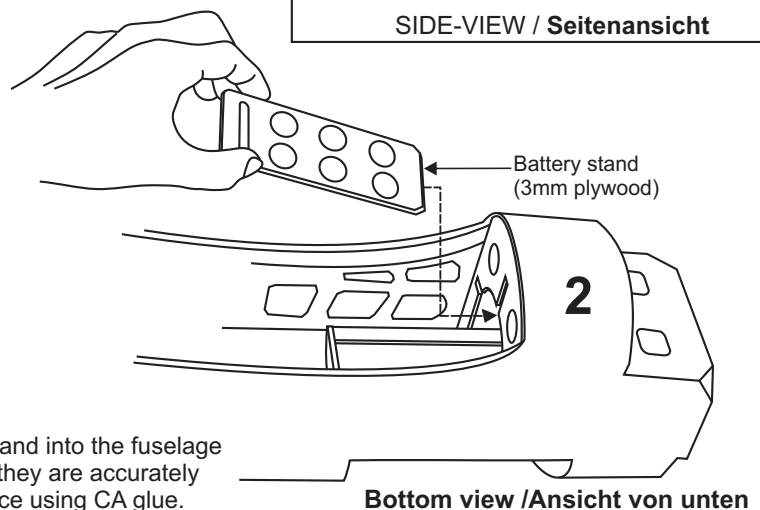
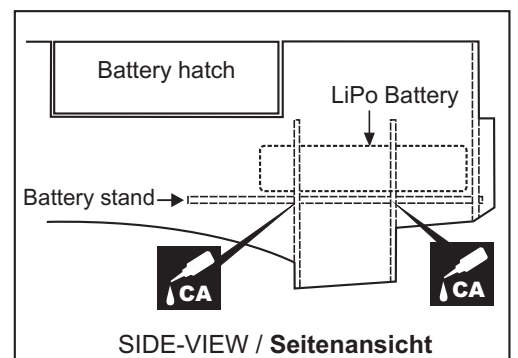
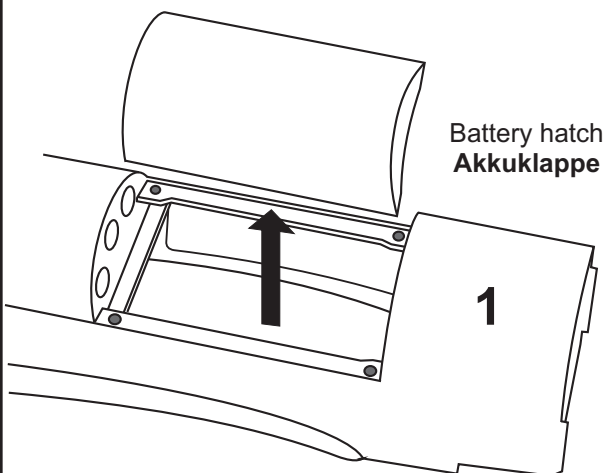


## 24- Linkages / Anlenkungen



## 25- Lipo Battery installation / LiPo Akku

TOP VIEW Draufsicht

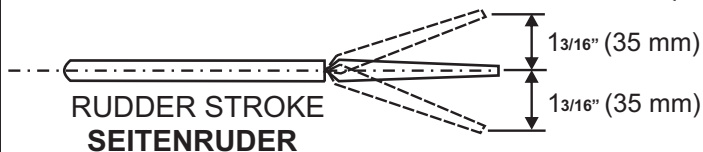


Slide the Lipo battery stand into the fuselage as show. Ensuring that they are accurately aligned. Secure it in place using CA glue.

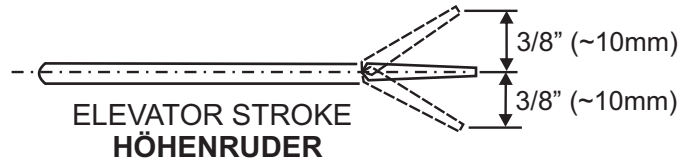
## 26- Control surface Ruderausschläge



AILERON STROKE  
QUERRUDER

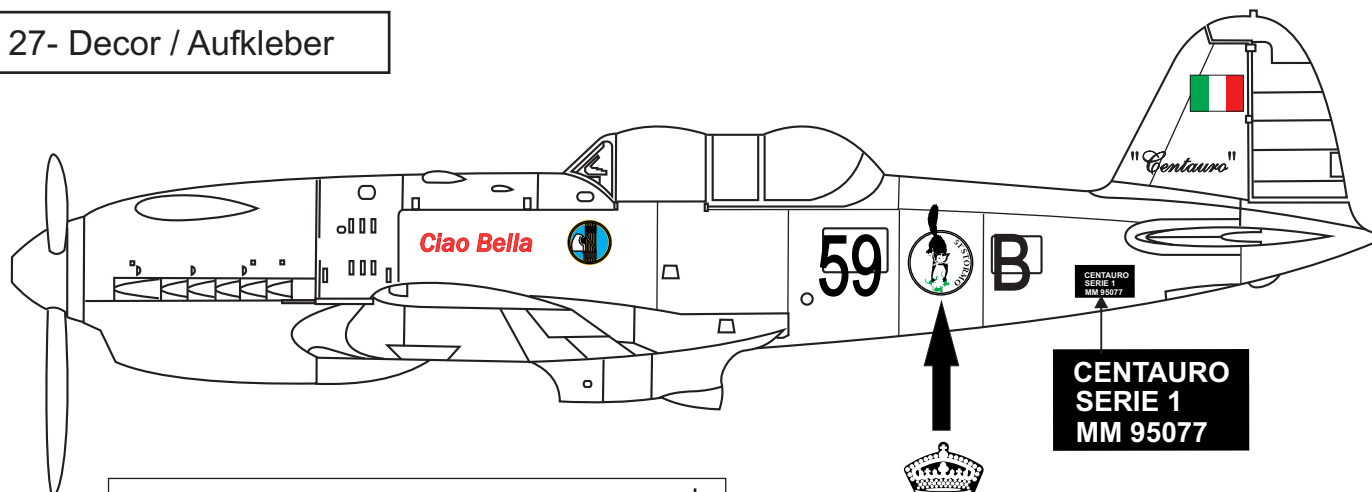


RUDDER STROKE  
SEITENRUDER



ELEVATOR STROKE  
HÖHENRUDER

## 27- Decor / Aufkleber



OR



Note: Cut out the stickers and apply them in the proper area. Do not peel the backing paper off all at once.

Peel off one corner of the backing and cut off with scissors.

Arrange sticker on model and when satisfied adhere the corner without backing.

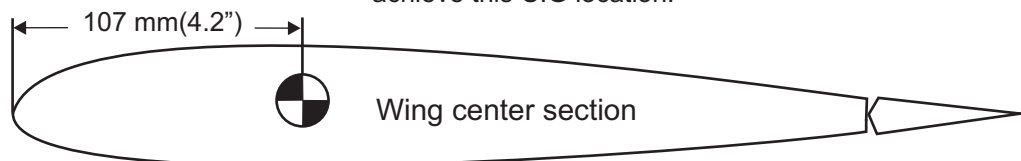
Carefully peel back the rest of the backing while at the same time adhering the rest of the sticker.

Try not to make air bubbles, if there are some, carefully puncture sticker (center of bubble) but not model surface with the tip of the knife or sharp pin and squeeze out the air. At curves stretch sticker and apply a little heat so that no creases occur. Cut off the excess that is produced.

## 28- Balance / Schwerpunkt

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

The recommended C.G (Center of Gravity) location for the Macchi is 106 - 108mm (~4.2"). Adjust the location of the battery pack as required to achieve this C.G location.



Wing center section

### IMPORTANT:

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