Radio control model / Flugmodel

P-47B/D THUNDERBOLT



VQA142DC

VQ No: VQA142DC
VQ No: VQA142DT
VQ No: VQA142BT

ALL BALSA, PLYWOOD CONSTRUCTION AND ALMOST READY TO FLY

Instruction manual / Montageanleitung

SPECIFICATIONS

Wingspan:.....1480mm
Length:.....1215mm
Electric Motor:.....See next pager
Glow Engine:..... .46 2-T / .70 4-T
RTF Weight: 3.1Kg (will vary with equipment use)
Radio:.....7 Channel / 7 Servos
Function: Ailerons-Elevator-Rudder-Throttle Flaps.

TECHNISCHE DATEN

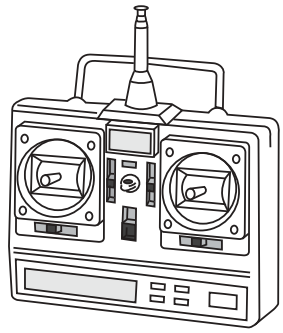
Spannweite:.....1480mm
Länge:.....1215mm
Elektroantrieb.....(siehe nächste Seite)
Verbrennerantrieb:.....7.45cc - 11.5cc
Fluggewicht:.....3.1Kg
Fernsteuerung.....7 Kanal / 7 Servos

RADIO CONTROL MODEL ®

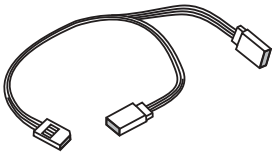
WARNING! This radio controlled model is NOT a toy. If modified or flown carelessly it could go out of controll and cause serious human injury or property damage. Before flying your airplane, ensure the air field is spacious enough. Always fly it outdoors in safe areas and seek professional advice if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

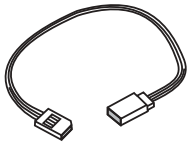
REQUIRED FOR OPERATION (Purchase separately)



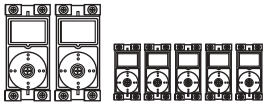




Flap: "Y" x2 pcs
Aileron: "Y"x1pcs

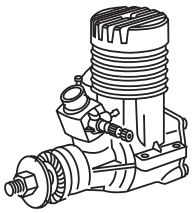


Aileron: 50cmx2 pcs
Flap: 30cmx2 pcs
Rx battery pack: 20cmx1 pcs

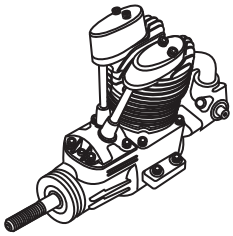


Standard Mini

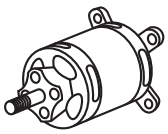
Minimum 7 channel radio
Elevator : 1 standard servo
Rudder: 1 standard servo
Aileron: 2 mini servo
Flaps: 2 mini servo
Throttle: 1 mini servo (for glow engine only)



.46 ~ .50 - 2 cycle



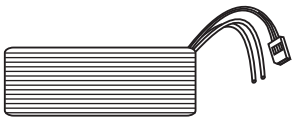
.72 ~.82 - 4 cycle



700-800W Brushless Motor



Silicone tube

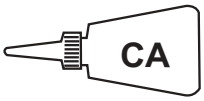


5 cell 4500mAh LiPo battery

GLUE (Purchase separately)



Silicon sealer



Cyanoacrylate Glue (thin type)



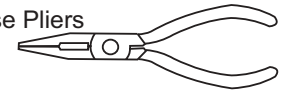
Epoxy Glue
(30 minute type)

TOLLS REQUIRED (Purchase separately)

Hobby knife



Needle nose Pliers



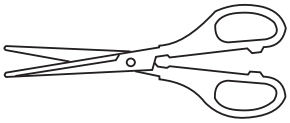
Sander



Phillip screw driver



Scissors



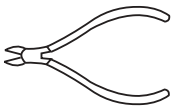
Hex Wrench



Awl



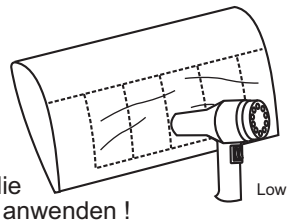
Wire Cutters



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

If exposed to direct sunlight and/or heat, wrinkels 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 Warumluftgebläse (Haartrockner) um evtl. Falten aus der Folie zu bekommen. Die Kanten können Sie mit einem Bügeleisen behandeln. Nicht zuviel Hitze anwenden !



Low seting

Symbols used throughout this instruction manual, comprise:

1.5mm — 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

A B — Use epoxy glue

CA — Apply cyano glue

L/R — Assemble left and right sides the same way.

X — Not included. These parts must be purchased separately

1.5mm — 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

A B — Epoxy-Klebstoff verwenden

CA — Sekundenkleber auftragen

L/R — Linke und rechte Seite wird gleichermaßen zusammengebaut

X — 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"	

P-47 THUNDERBOLT 1- ENGINE MOUNT

Attach the engine mount beams onto the fire-wall so the distance between of two engine mount beams is “A”,and B=B’ as show.
Secure the engine mount beams onto the fire-wall with litter CA glue (1B)

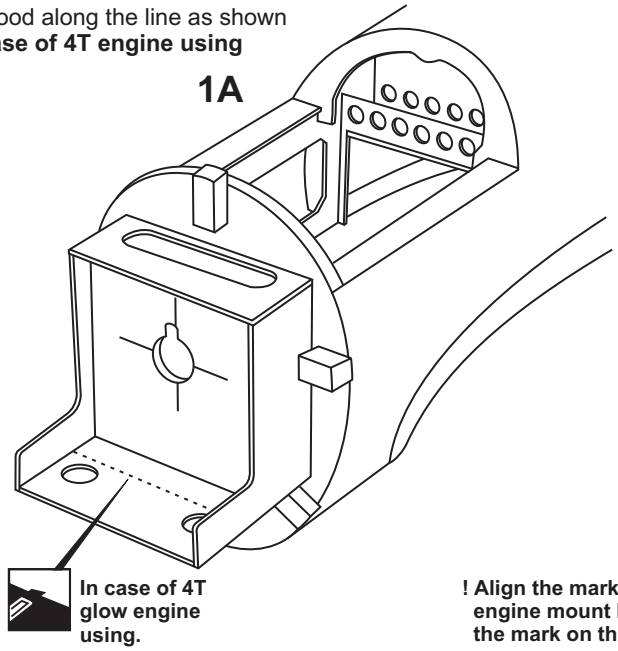
! Align the mark on both engine mount beams with the mark on the fuselage

Using a pencil or felt tipped pen, mark the fire wall where the four holes are to be drilled(1B))

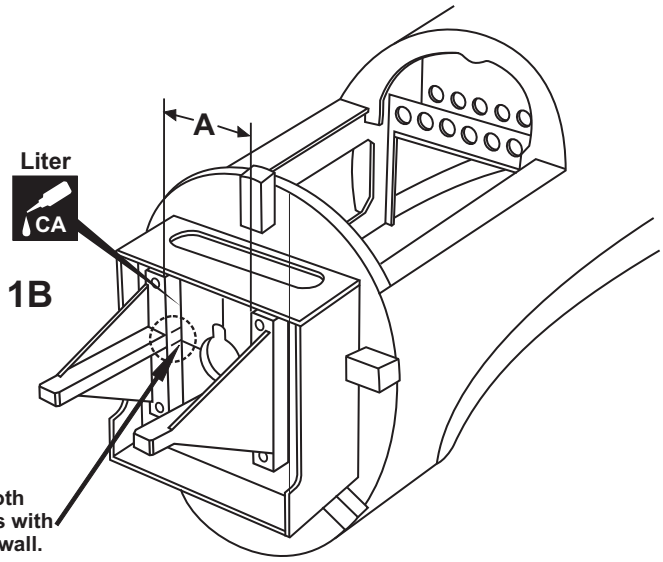
Push left (or right) the magnetic fuel tank hatch and full it out of the fuselage.

Cut the wood along the line as shown (**1A**) **in case of 4T engine using**

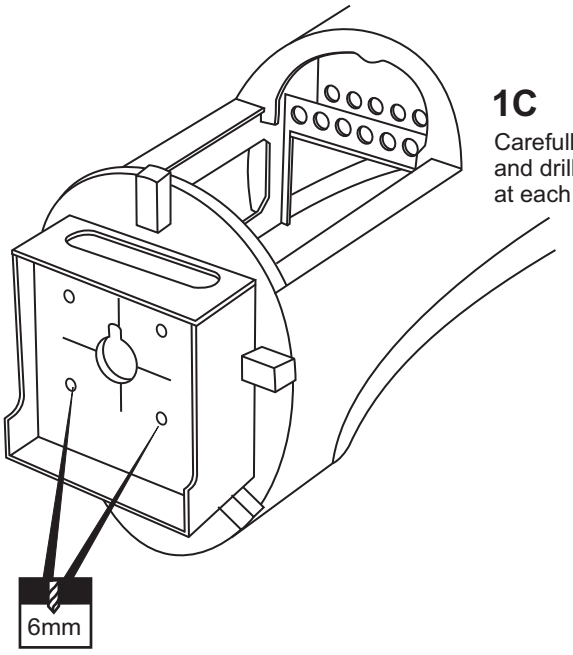
1A



In case of 4T glow engine using.

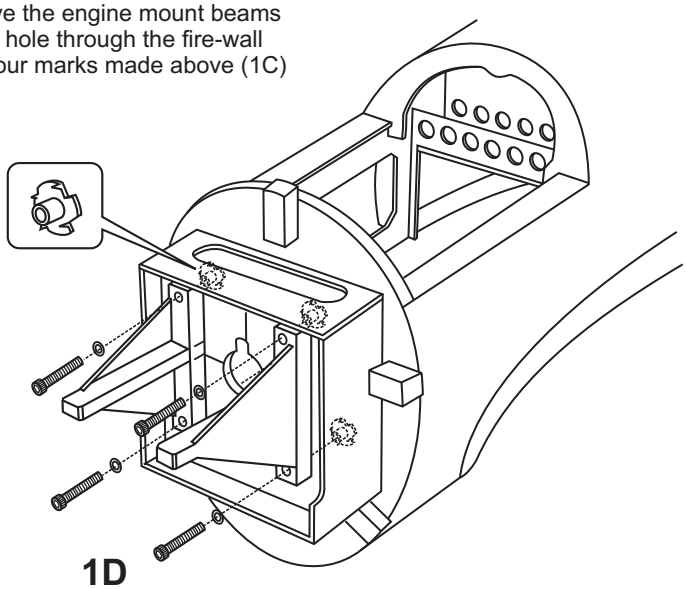


! Align the mark on both engine mount beams with the mark on the fire-wall.



1C

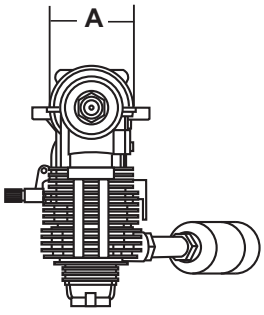
Carefully remove the engine mount beams and drill a 6mm hole through the fire-wall at each of the four marks made above (1C)



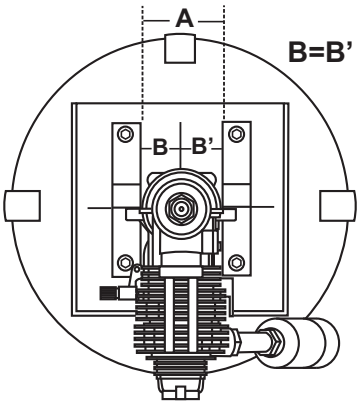
1D

Insert the blind-nut onto each of the four holes make above (1D).

Reposition the engine mount beams on to the fire-wall and secure them with four 4x25mm screw (1D)



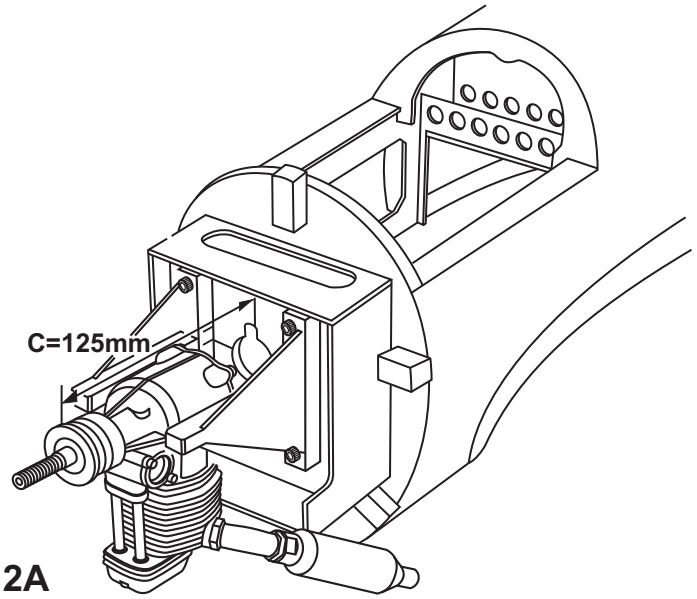
FRONT-VIEW



4x25mm screw - washer 4

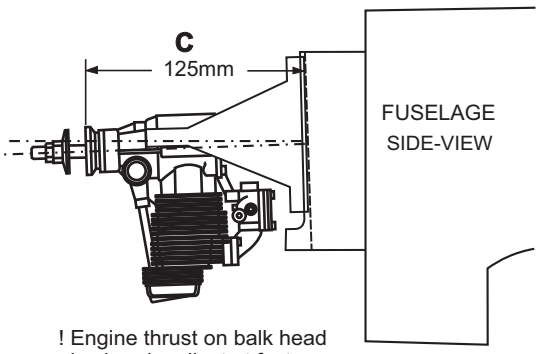
Blind-nut 4

P-47 THUNDERBOLT 2- ENGINE



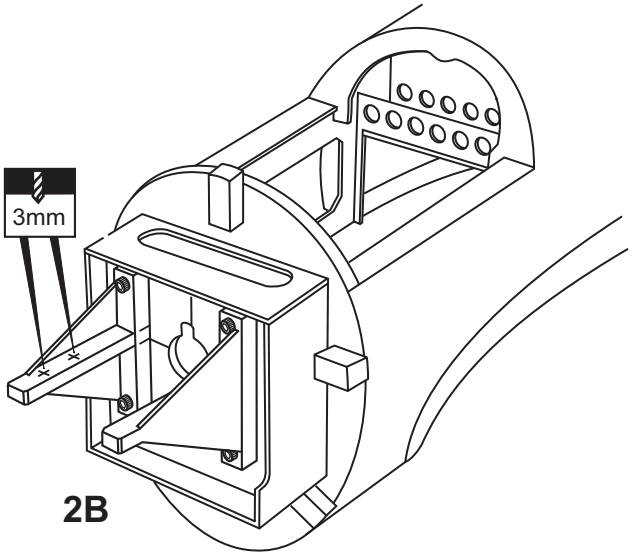
2A

Position the engine to the engine mounts so the distance from the prop hub to the fire-wall is 125mm.
Mark the engine mounting plate where the four holes are to be drilled (2A)



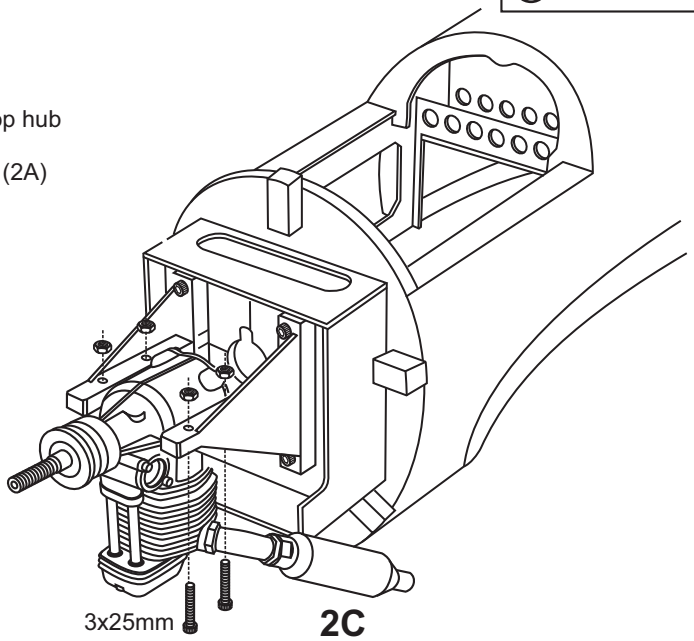
! Engine thrust on balk head is already adjust at factory

3x25mm screw	4
Washer	4



2B

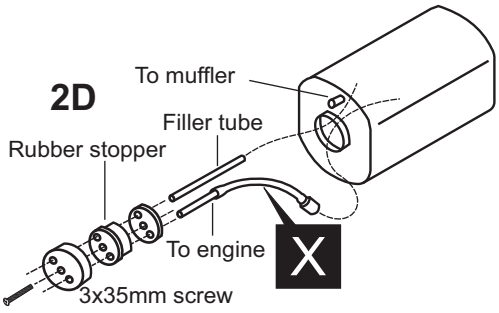
Remove the engine and drill a 3mm holes through the beam at each of the four marks made above (2B)
Marking sure that you drill the hole perpendicular to the beam of the engine mount.



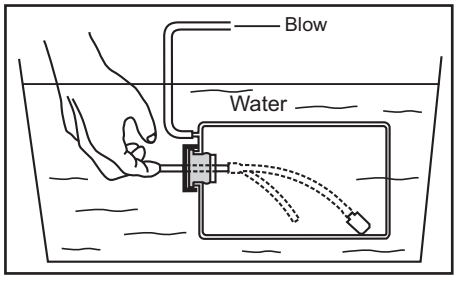
2C

Reposition the engine on the engine mount beams, aligning it with the holes. Secure the engine to the engine mount using four 3x25mm screws (2C)

Note: Apply Silicon sealer to each of the 3x25mm screw and nut.

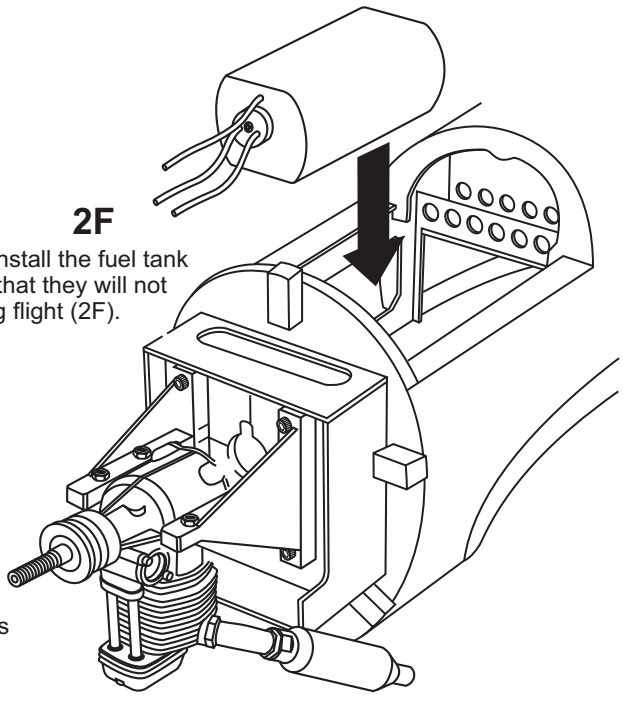


2D



2E

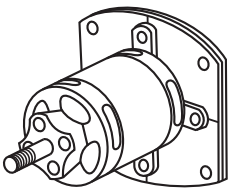
Checking for leaks - block the vents and blow into the feed - if in doubt submersing the tank in a blow of water will show up any problems.



2F

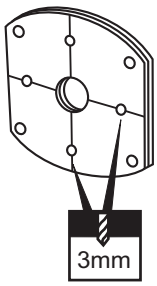
Carefully install the fuel tank to ensure that they will not shift during flight (2F).

P-47 THUNDERBOLT 3- ELECTRIC MOTOR



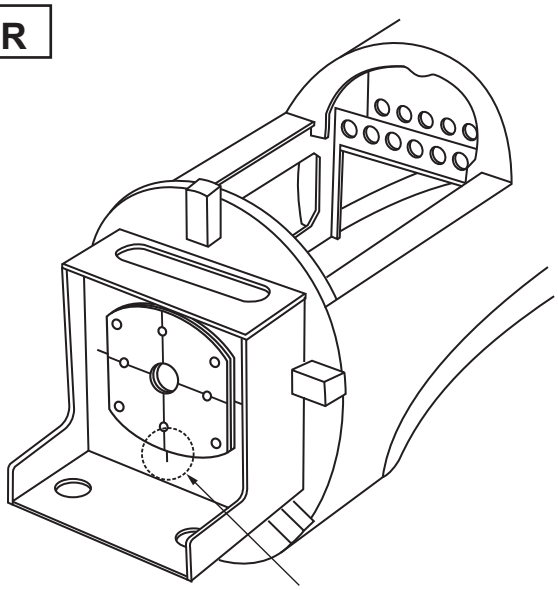
Using a aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled.

3A



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

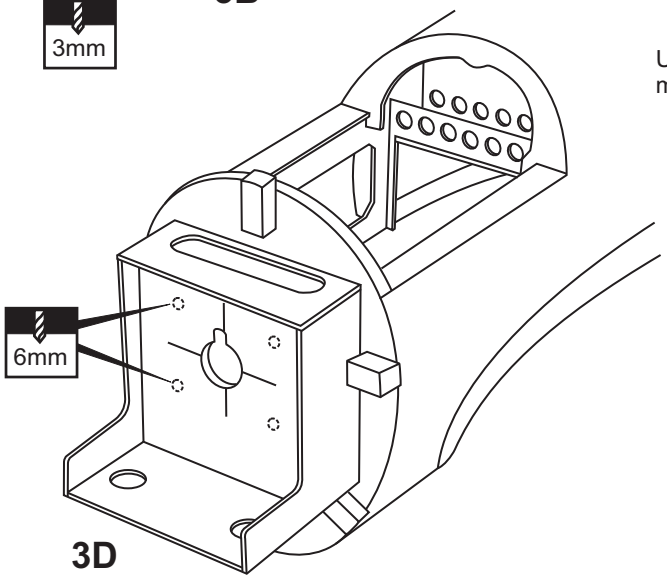
3B



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

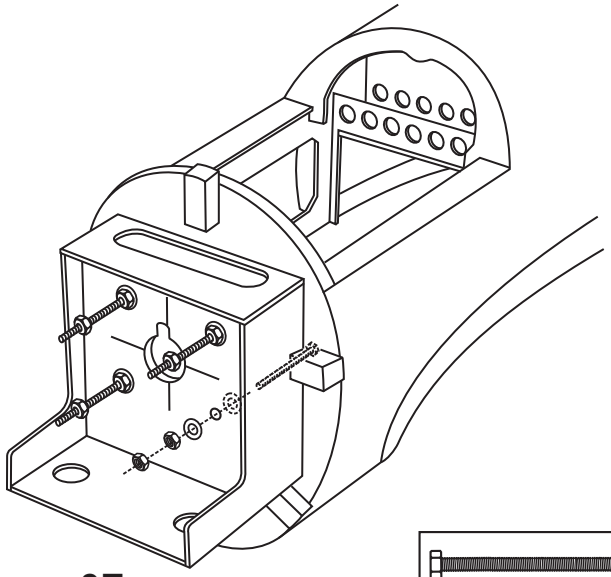
3C

Using a wooden motor mounting plate as a template, mark the fire-wall where the four holes are to be drilled (3C).



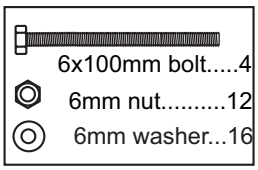
3D

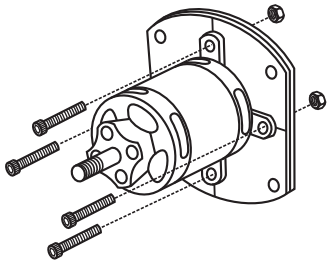
Remove the wooden motor mounting plate and drill a 6mm hole through the fire-wall at each of the four marks marked (3D) .



3E

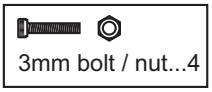
Attach the four 5x70mm bolts and nuts to the fire-wall as shown (3E).



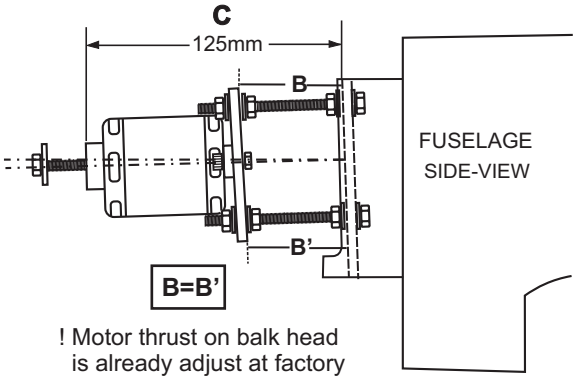


3F

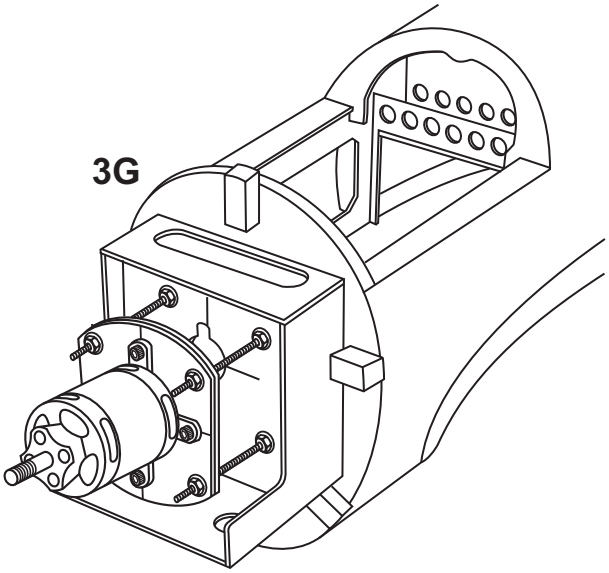
Secure the Motor to the wooden motor mounting plate using the four 3mm bolts.



SIDE-VIEW / **Seitenansicht**



! Motor thrust on balk head is already adjust at factory



3G

P-47 THUNDERBOLT 4- WING: SERVO AND LINKAGES

Plastic control horn
.....2 set

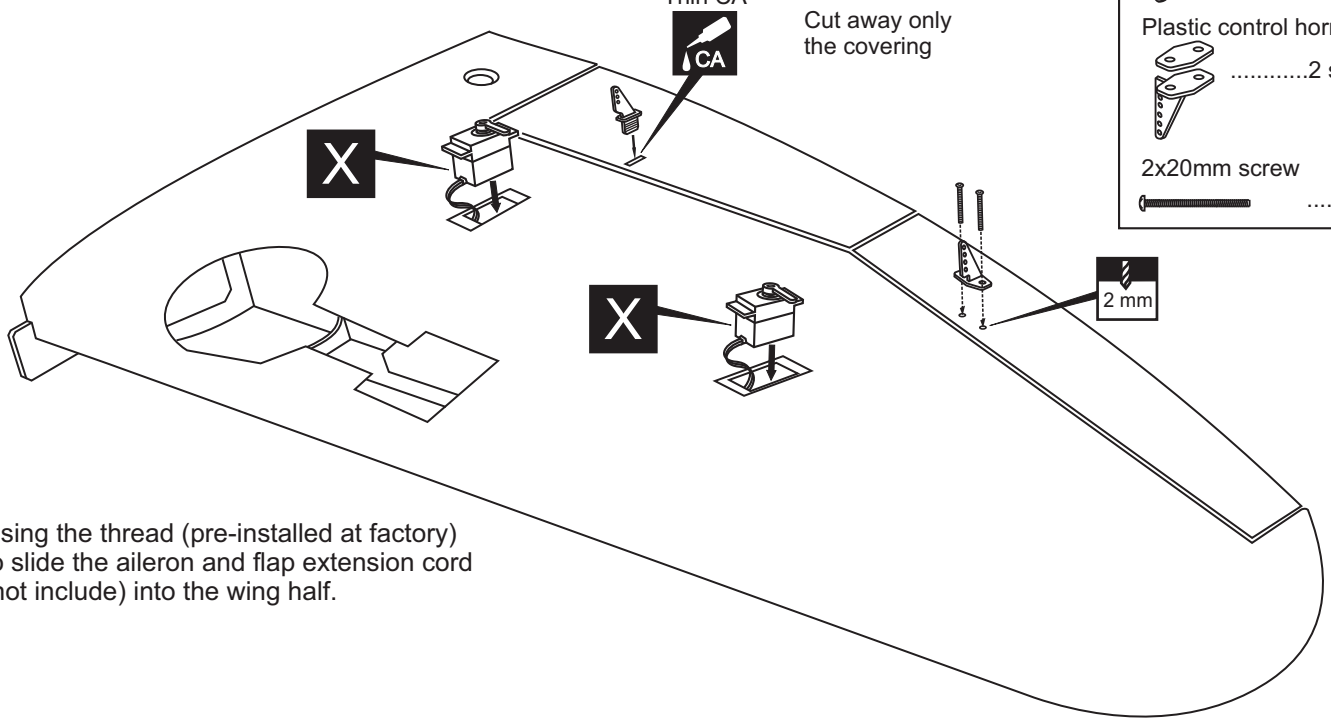
Plastic control horn
.....2 set

2x20mm screw
.....4

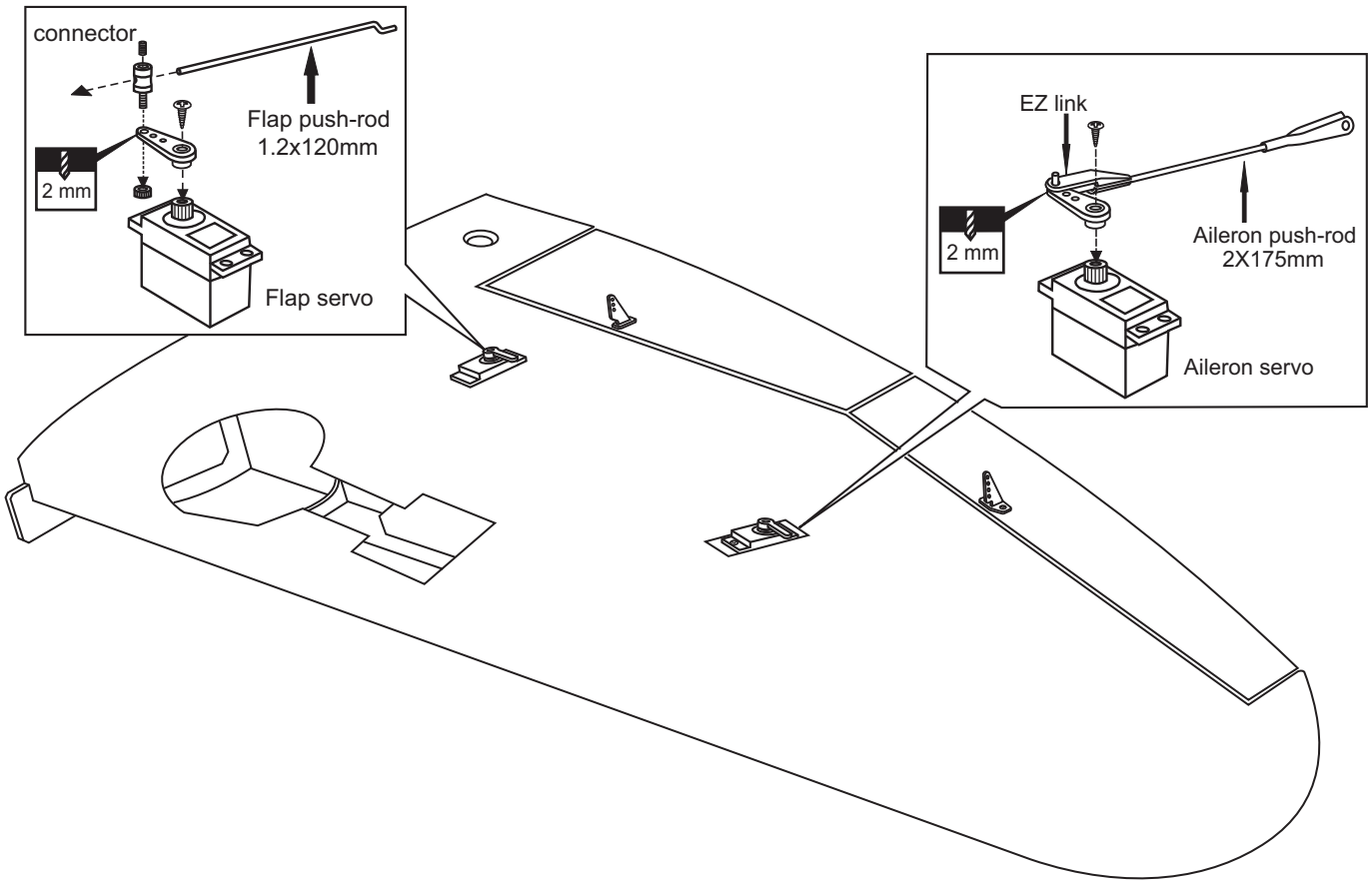
Secure the plastic control horn in place using the thin CA glue.

Thin CA

Cut away only the covering



Using the thread (pre-installed at factory) to slide the aileron and flap extension cord (not include) into the wing half.



Plastic EZ link
.....2

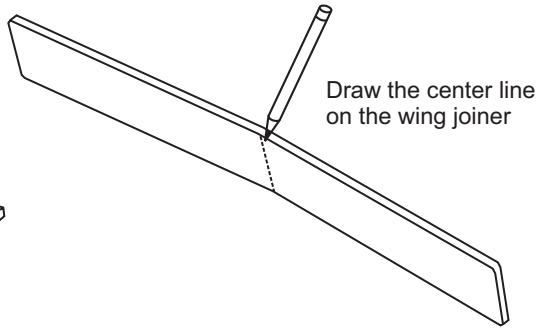
Steel clevis
.....2

Aileron push rod 2x175mm
.....2

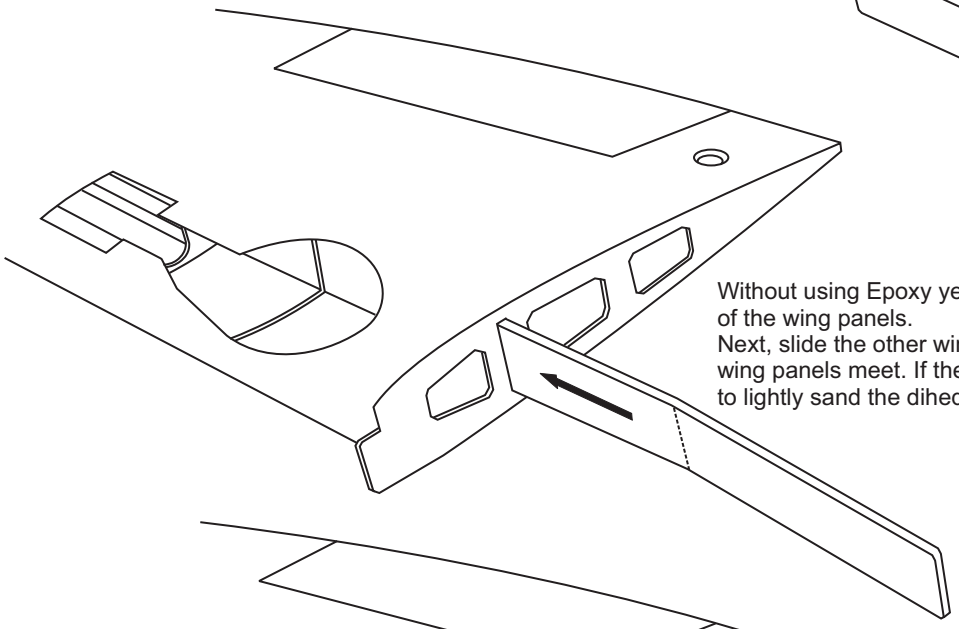
Connector
2mm 2

Flap push rod 1.2x120mm
.....2

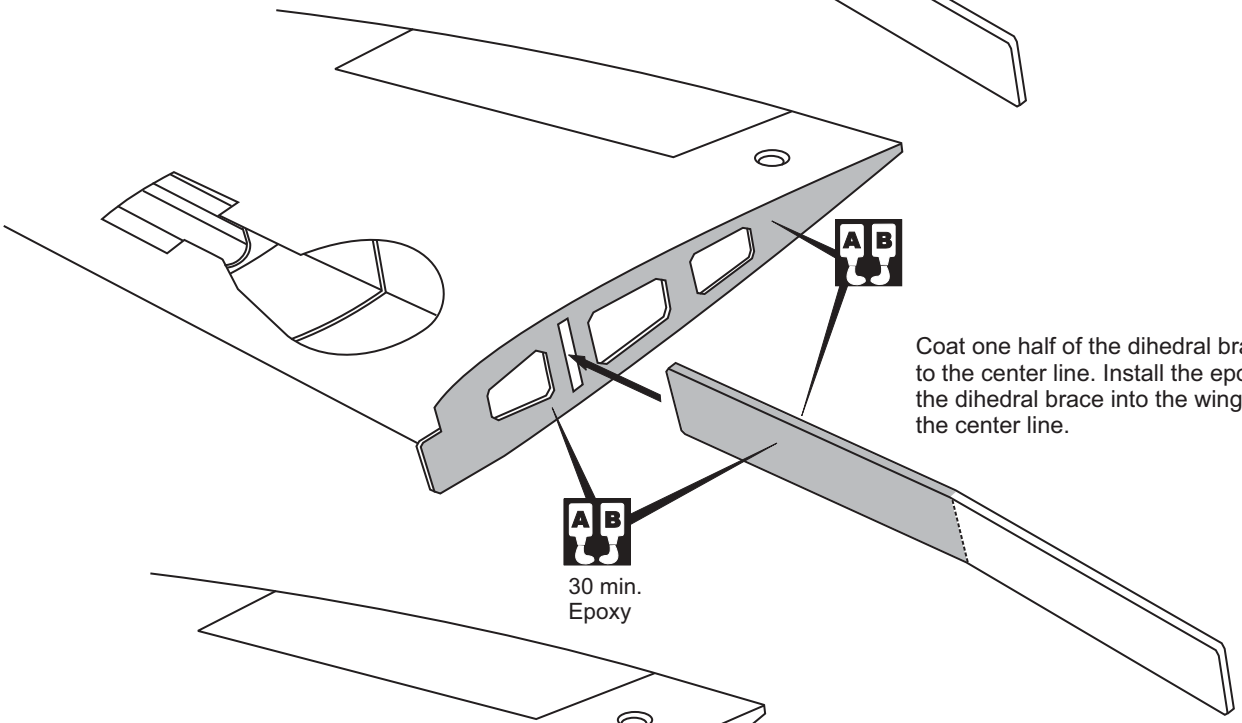
P-47 THUNDERBOLT 5- JOINNING THE WING



Draw the center line on the wing joiner

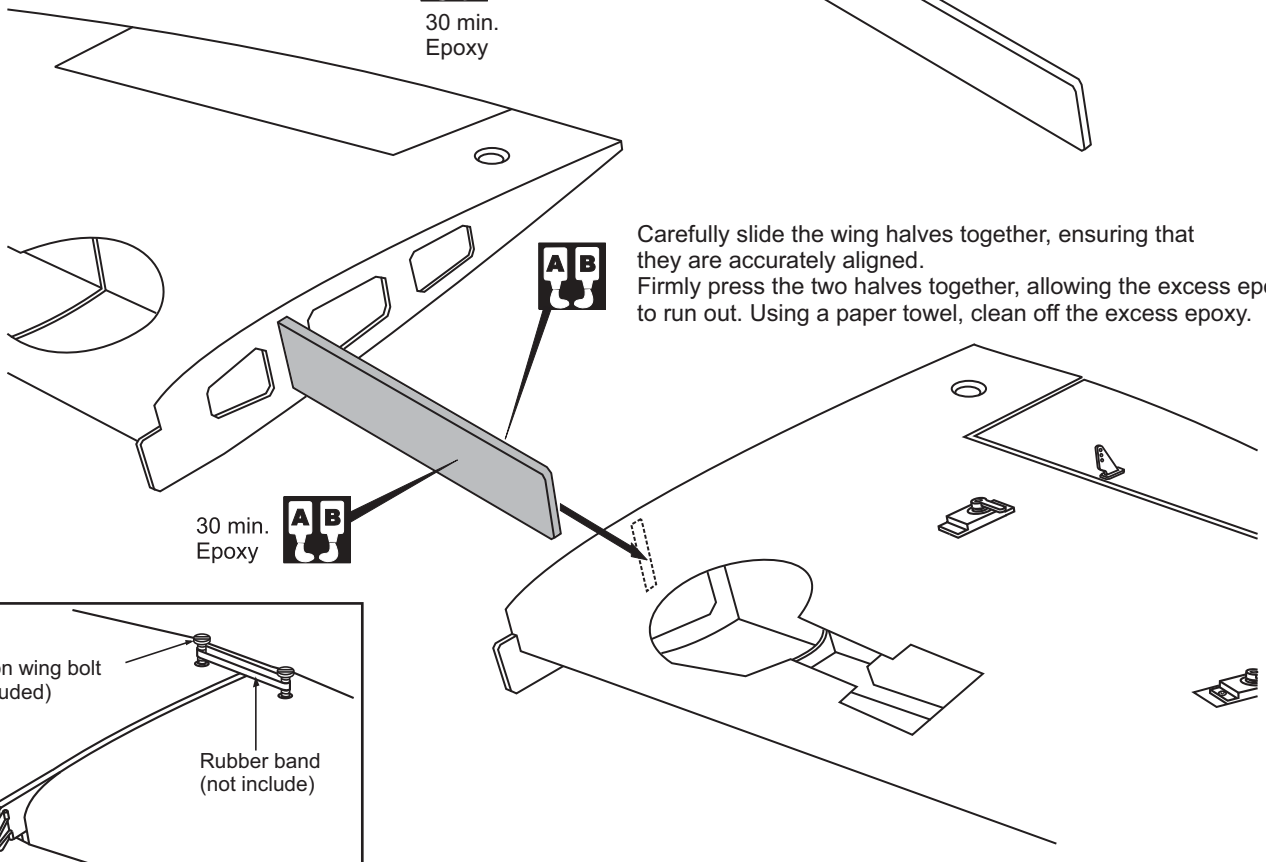


Without using Epoxy yet, trial fit the wing joiner into one of the wing panels.
Next, slide the other wing half onto the dihedral brace until the wing panels meet. If the fit is overly tight, it may be necessary to lightly sand the dihedral brace.



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.

30 min.
Epoxy

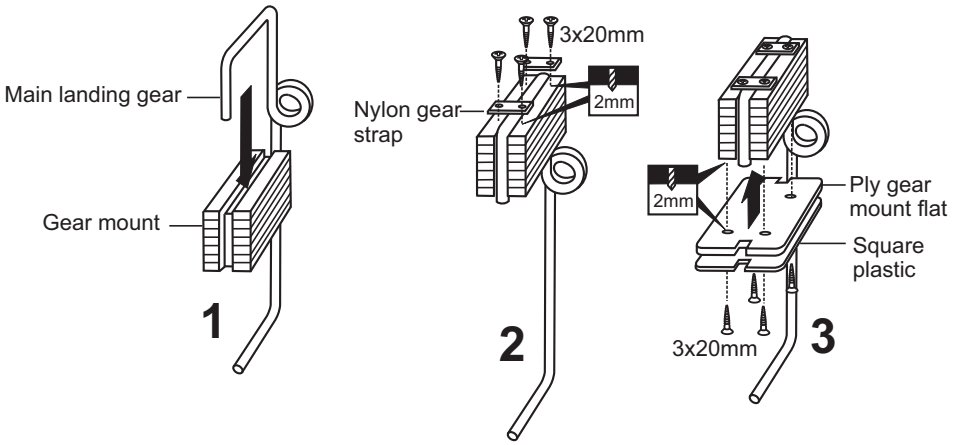


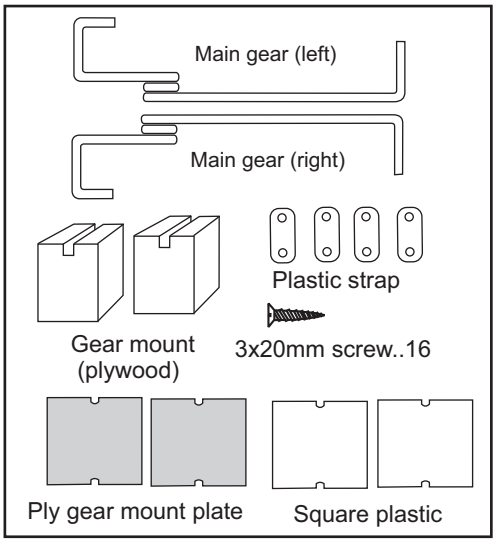
Carefully slide the wing halves together, ensuring that they are accurately aligned.
Firmly press the two halves together, allowing the excess epoxy to run out. Using a paper towel, clean off the excess epoxy.

30 min.
Epoxy

Hold the wing halves together with paper clamp and rubber band.

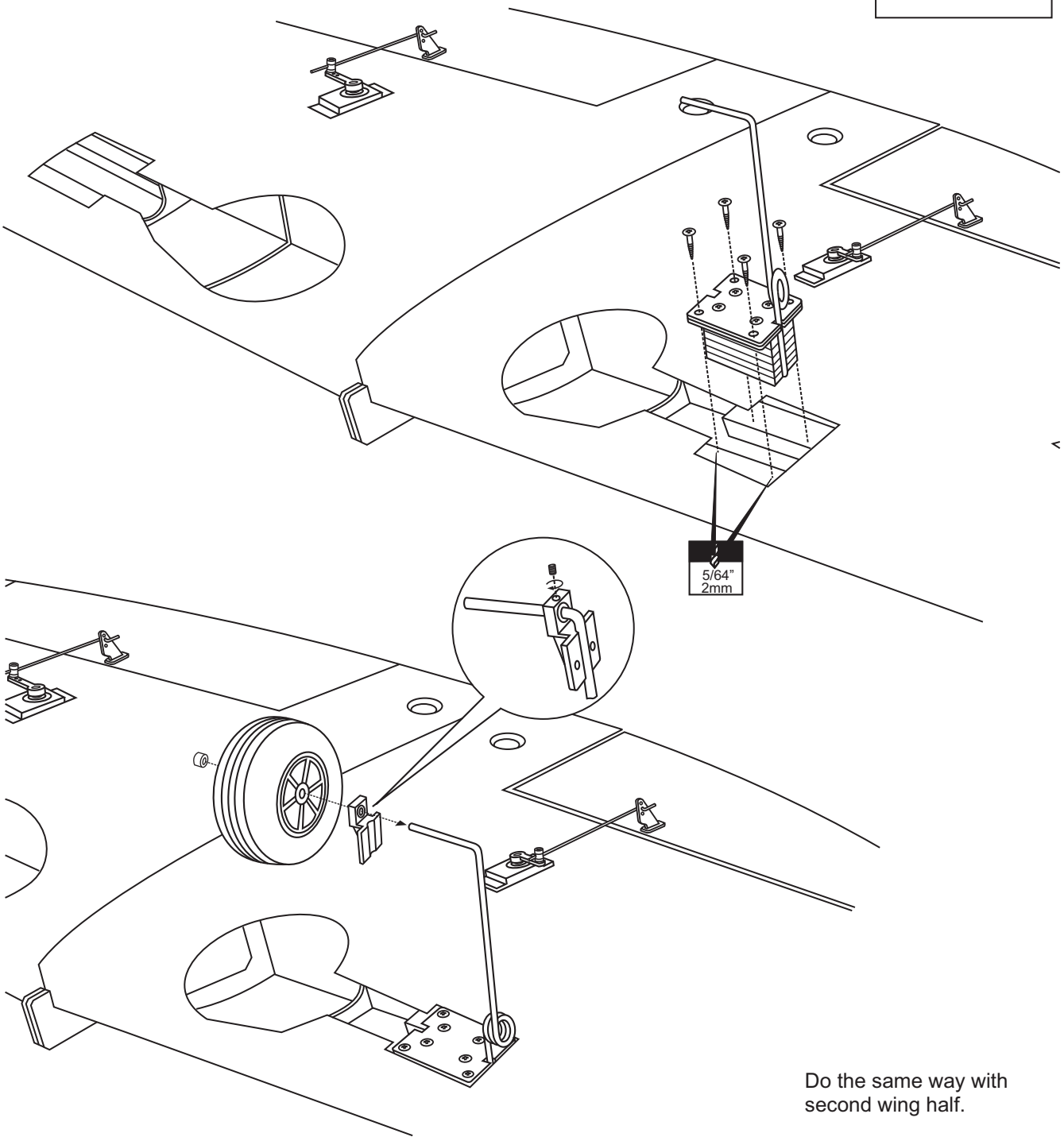
P-47 THUNDERBOLT 6- FIXED GEAR ASSEMBLY





P-47 THUNDERBOLT 7- FIXED GEAR INSTALLATION

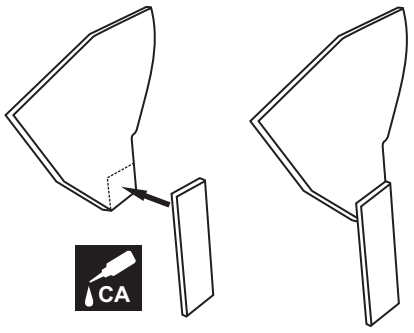
3x10mm screw 8



Do the same way with second wing half.

P-47 THUNDERBOLT 8- GEAR DOOR

In case of fixed gear using

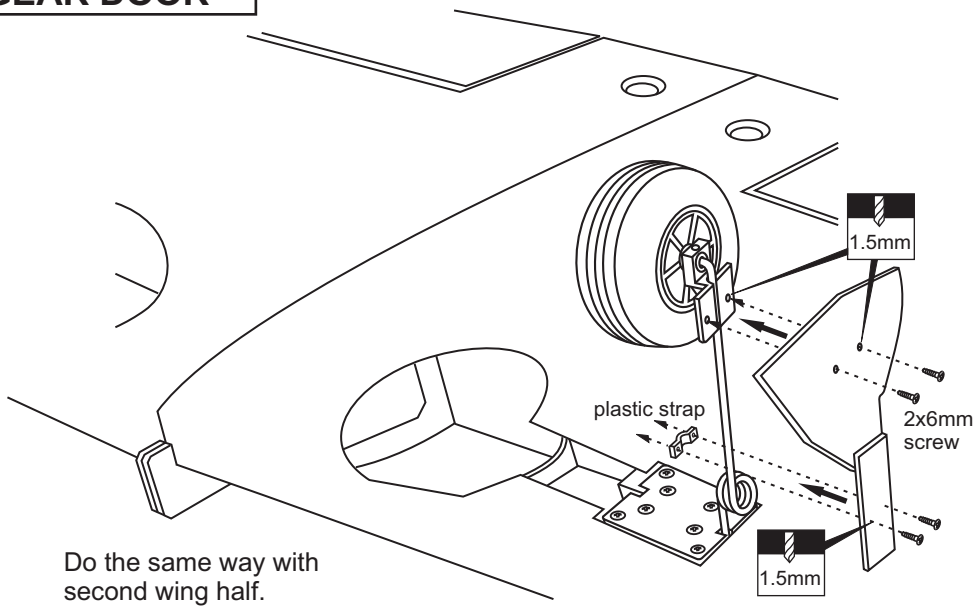


Plywood gear cover

Plastic strap

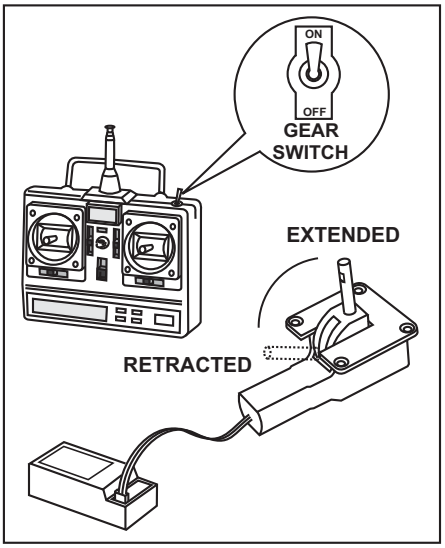


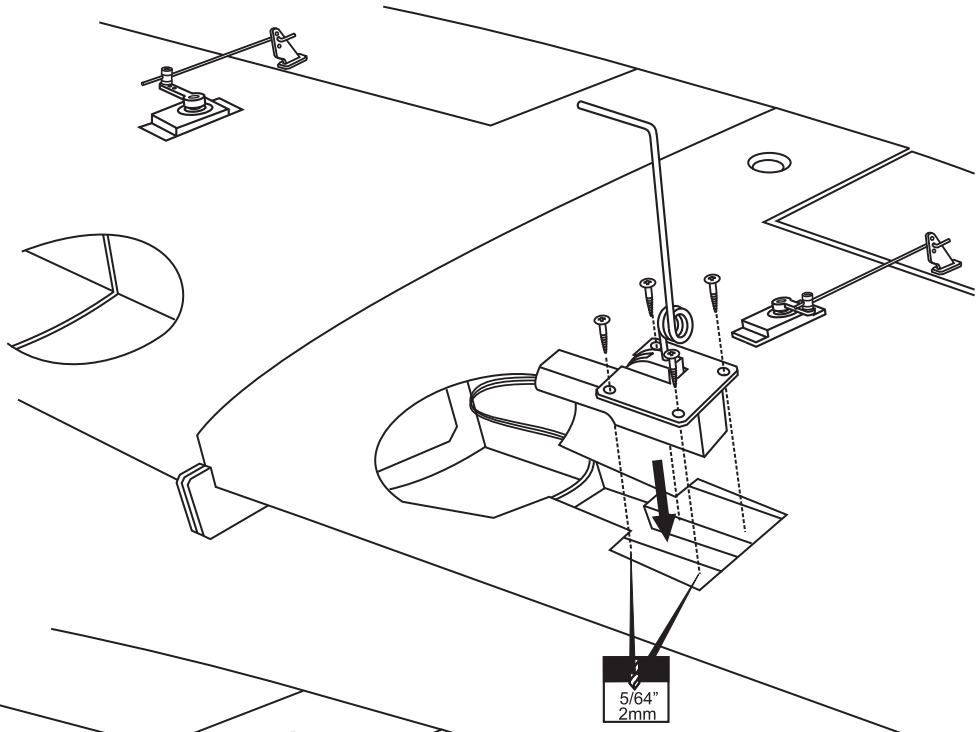
.....2

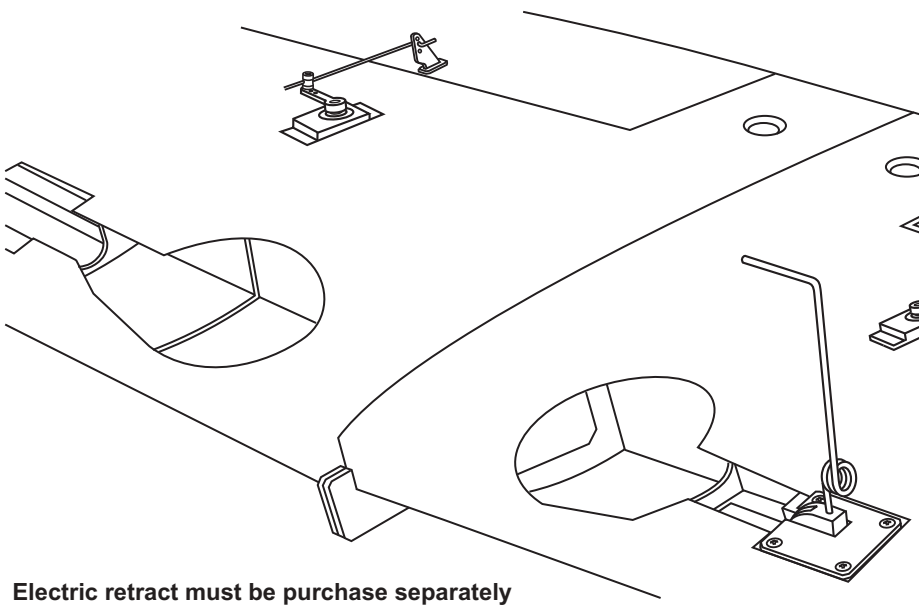


Do the same way with
second wing half.

P-47 THUNDERBOLT 9- ELECTRIC RETRACT GEAR INSTALLATION





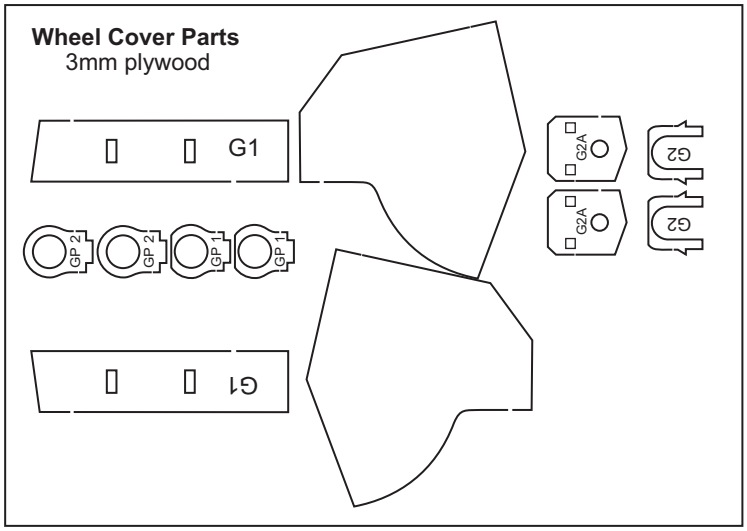


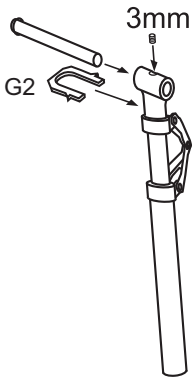
Electric retract must be purchase separately

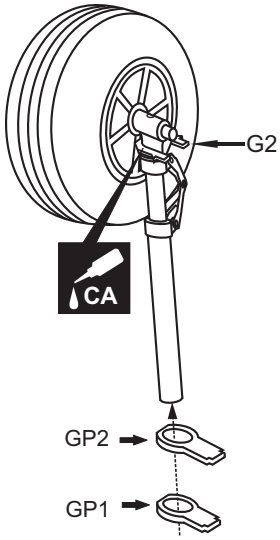
Do the same way with
second wing half.

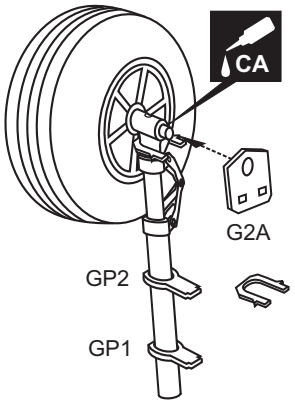
Important: When you “on” the retract swicth, if the retract gear does not retracted completely, use your finger to push the retract gear to the completely retrated position, it will extend. Then use the hobby knife to remove the place where the retract gear is entangled.

P-47 THUNDERBOLT 10- STRUT AND GEAR DOOR ASSEMBLY

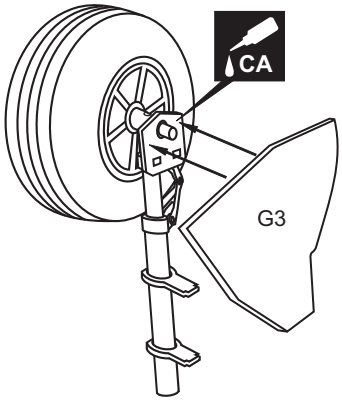




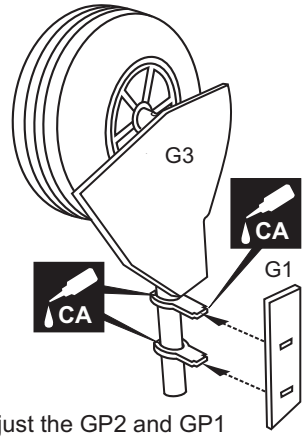




Glue the G2A to the Strut and G2, But **do not glue** the GP2 and GP1 to the Strut in this time.

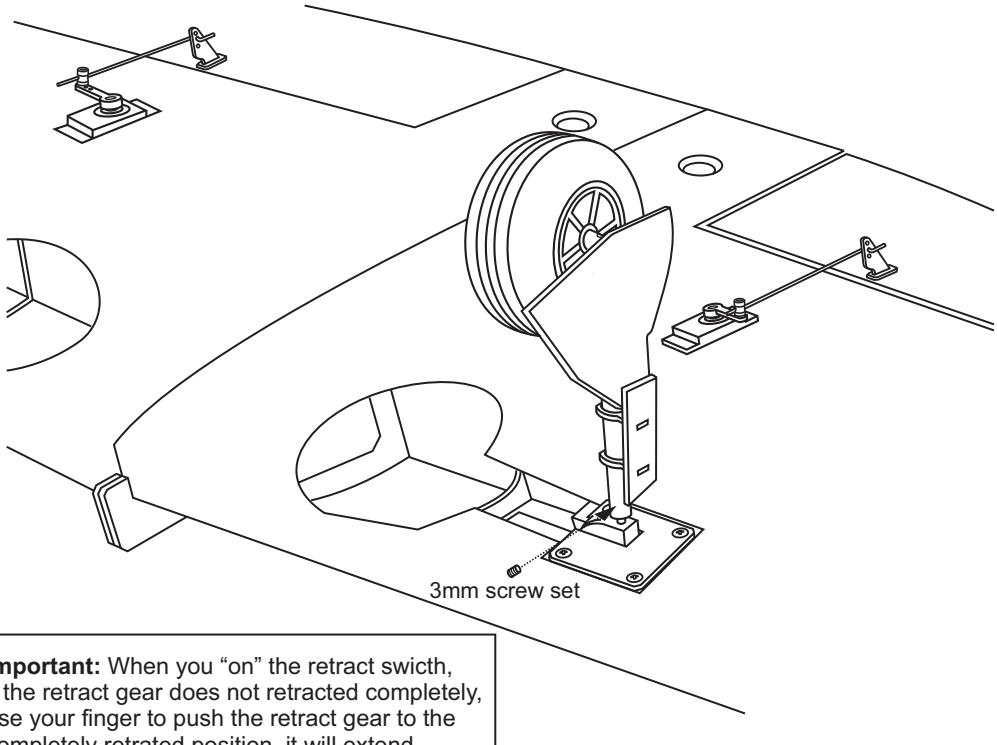


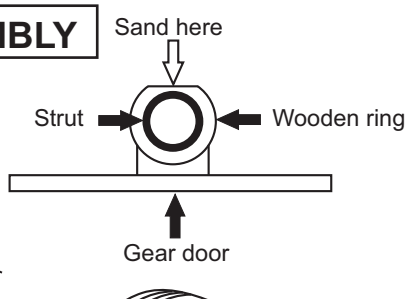
Glue the G3 to the G2A

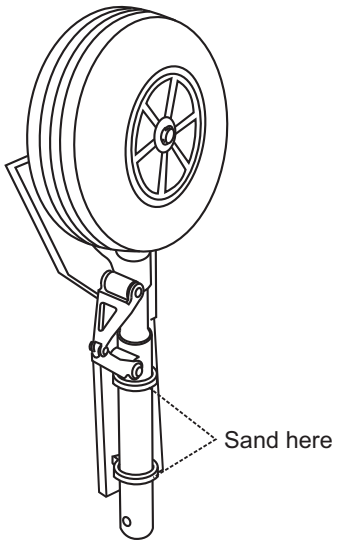


Adjust the GP2 and GP1 before glue them to the G1. Glue the GP2 and GP1to the Strut.

P-47 THUNDERBOLT 11- STRUT AND GEAR DOOR ASSEMBLY





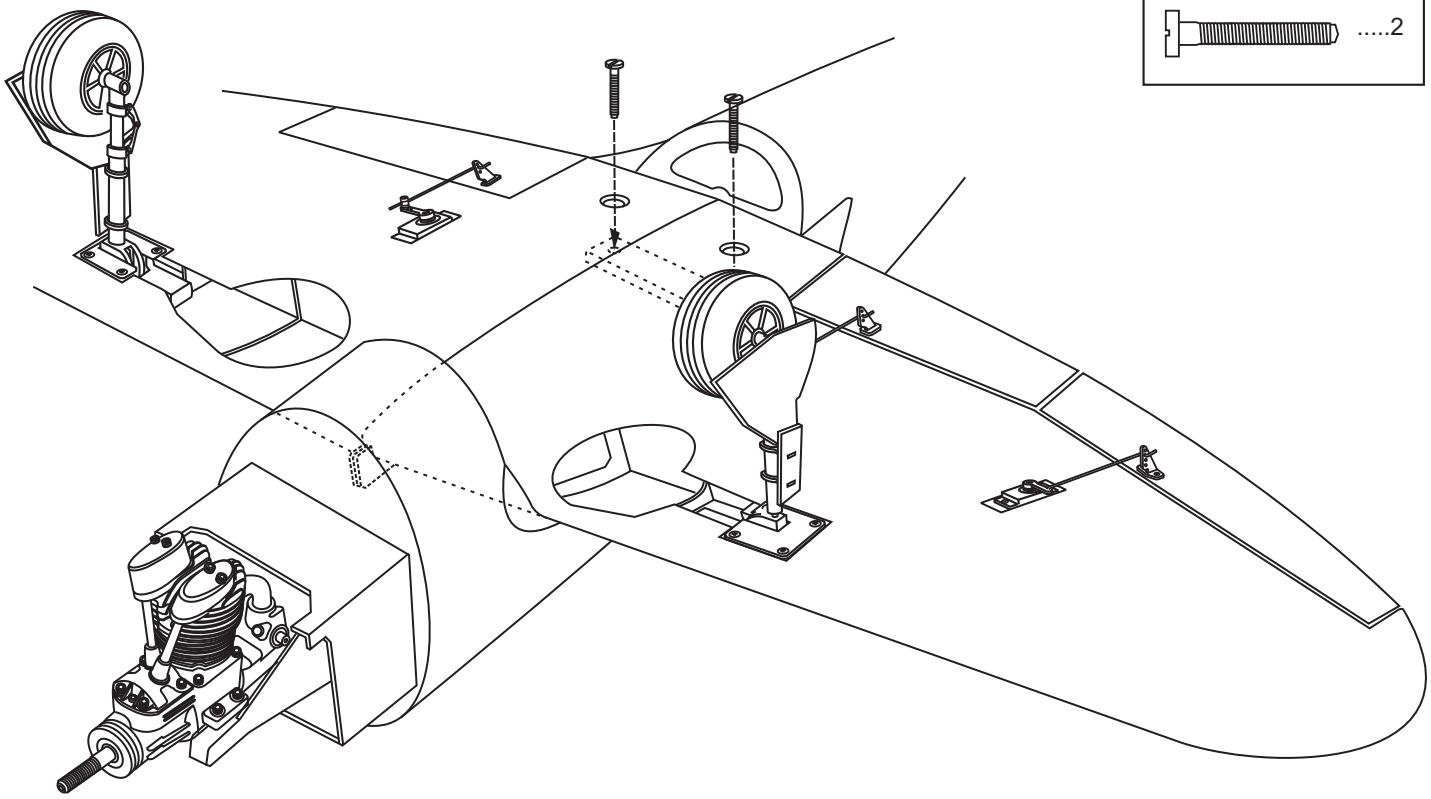


Lightly sand the wooden rings to be sure that the struts locks in retracted position.

Important: When you “on” the retract swicth, if the retract gear does not retracted completely, use your finger to push the retract gear to the completely retrated position, it will extend. Then use the hobby knife to remove the place where the retract gear is entangled.

P-47 THUNDERBOLT 12- WING INSTALLATION

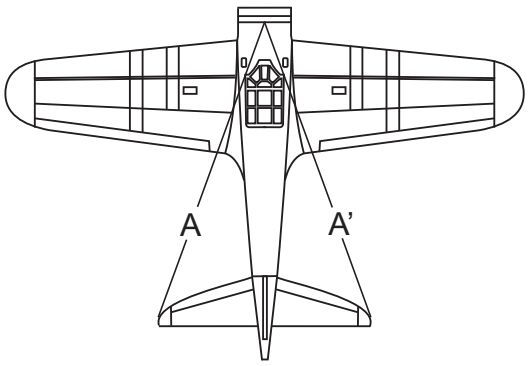
6x50mm nylon bolt 2



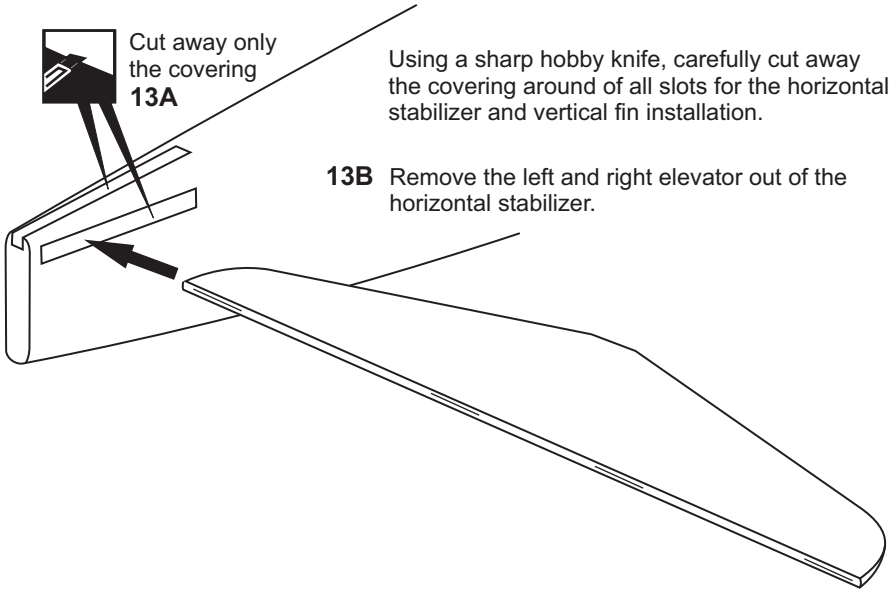
P-47 THUNDERBOLT 13- STABILIZER INSTALLATION

Push the horizontal stabilizer into the slot on the fuselage as show. Check the alignment of the horizontal stabilizer by measuring from a fixed point along the center line of the fuselage to the leading edge on each side of the horizontal stabilizer. The distance must be equal on both sides . If not, adjust the stabilizer until the measurements are the same (see picture below: A=A').

A = A'



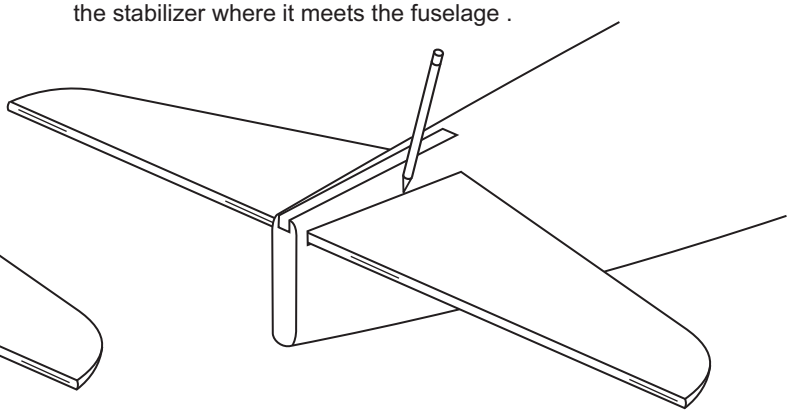
Cut away only the covering **13A**



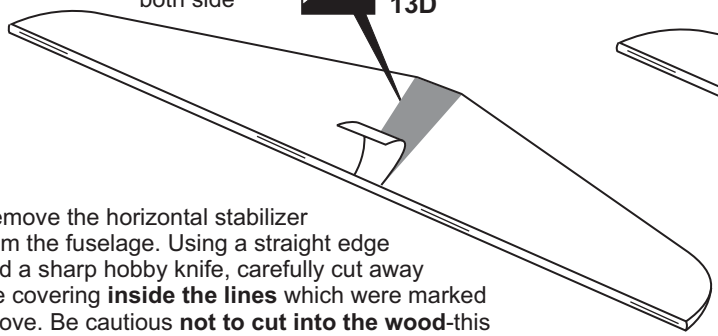
Using a sharp hobby knife, carefully cut away the covering around of all slots for the horizontal stabilizer and vertical fin installation.

13B Remove the left and right elevator out of the horizontal stabilizer.

13C When you are satisfied with the alignment, use a pencil to trace around the top and bottom of the stabilizer where it meets the fuselage .

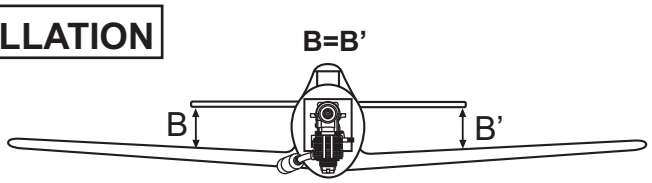


Cut away only the covering both side **13D**

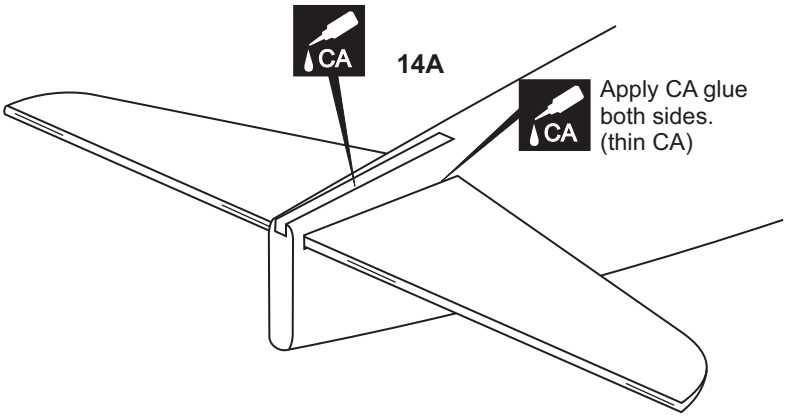


Remove the horizontal stabilizer from the fuselage. Using a straight edge and a sharp hobby knife, carefully cut away the covering **inside the lines** which were marked above. Be cautious **not to cut into the wood**-this will weaken the structure **.**

P-47 THUNDERBOLT 14- STABILIZER INSTALLATION



Apply thin CA glue into the slot where the fuselage meet the horizontal stabilizer.



14A

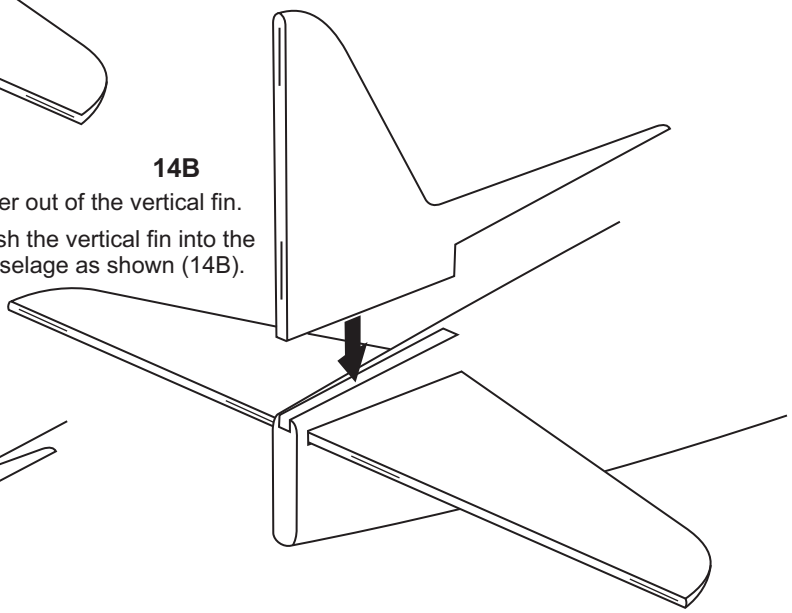
Apply CA glue both sides. (thin CA)

Install the horizontal stabilizer onto the fuselage and adjust the alignment as described in steep 13A.
Note: it is important to ensure that the horizontal stabilizer is also level in regards to the wing. The distance must be equal on both sides. If not, adjust the stabilizer until the measurements are the same.
Apply the thin CA along the area where the covering was removed in the previous step and to the fuselage where the horizontal stabilizer mounts .

14B

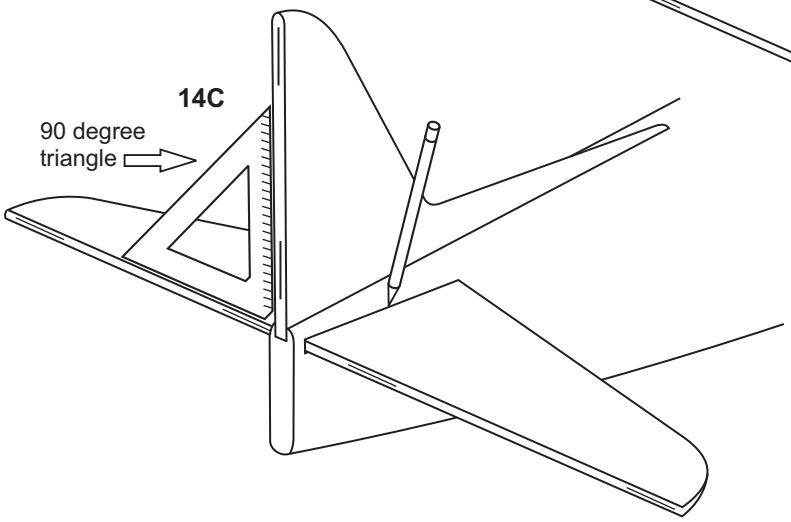
Pull the rudder out of the vertical fin.

Carefully, push the vertical fin into the slot on the fuselage as shown (14B).



14C

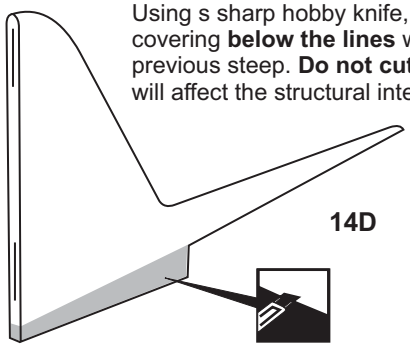
90 degree triangle



Trial fit the vertical fin in position. Using a 90 degree triangle, ensure that the vertical stabilizer is perpendicular to the horizontal stabilizer (14C).

Using a pencil, trace around the vertical stabilizer where it meets the fuselage. Remove the vertical stabilizer from the fuselage.

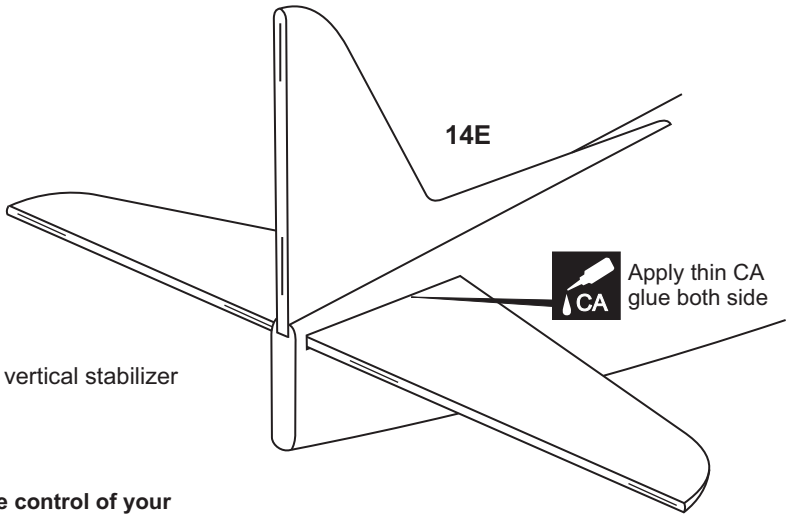
Remove the vertical stabilizer from the fuselage. Using s sharp hobby knife, carefully cut away the covering **below the lines** which were drawn in the previous steep. **Do not cut into the woods** as this will affect the structural integrity of the stabilizer (14D).



14D

Cut away only the covering

14E

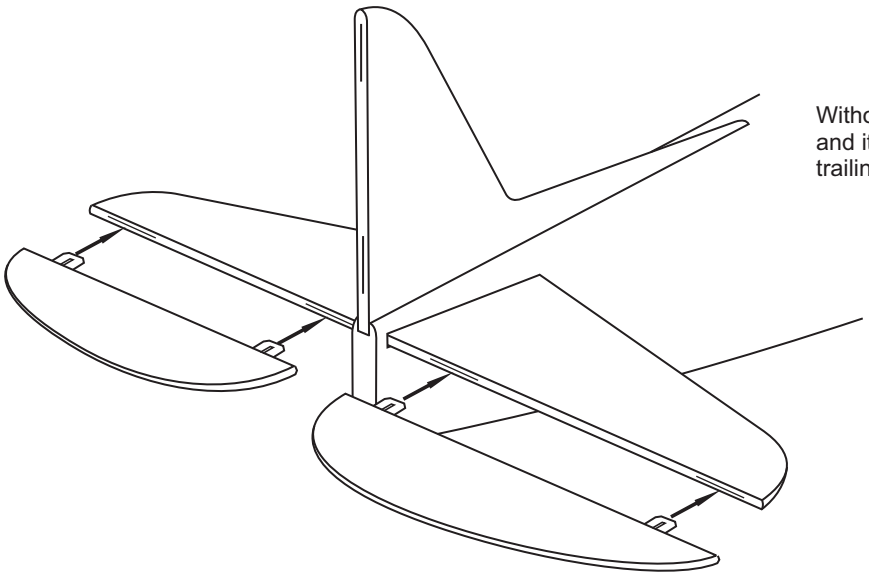


Apply thin CA glue both side

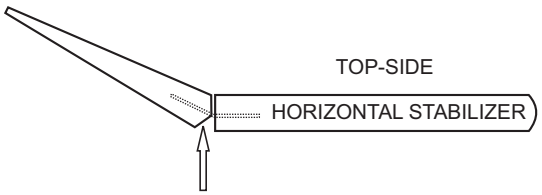
Insert the vertical fin into the fuselage, precisely align the vertical stabilizer as described in step 14C.

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

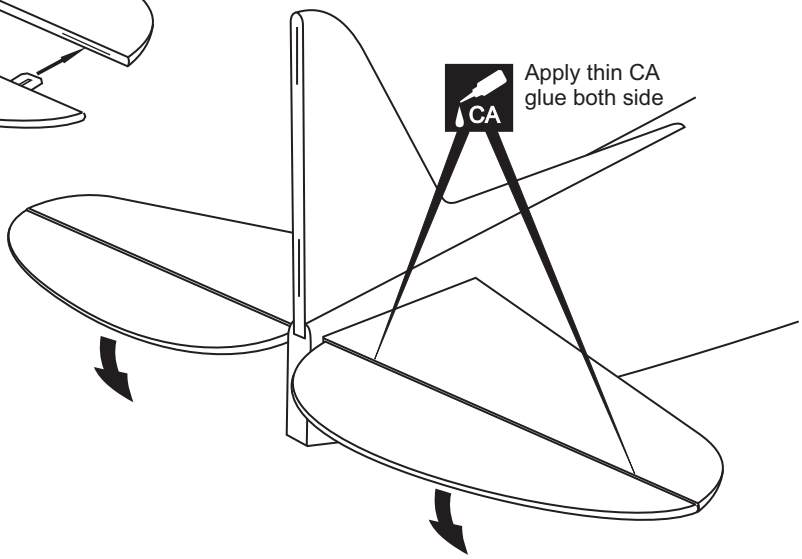
P-47 THUNDERBOLT 15- ELEVATOR AND CONTROL HORN



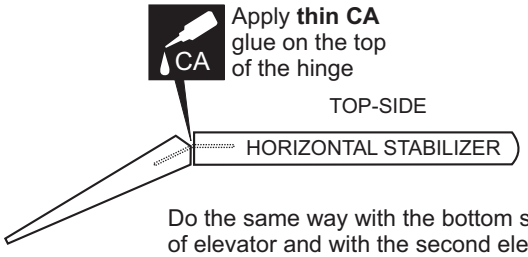
Without using glue yet, push the elevator and its hinges into the hinge slots in trailing edge of the horizontal stabilizer.



Apply a thin layer of petroleum jelly

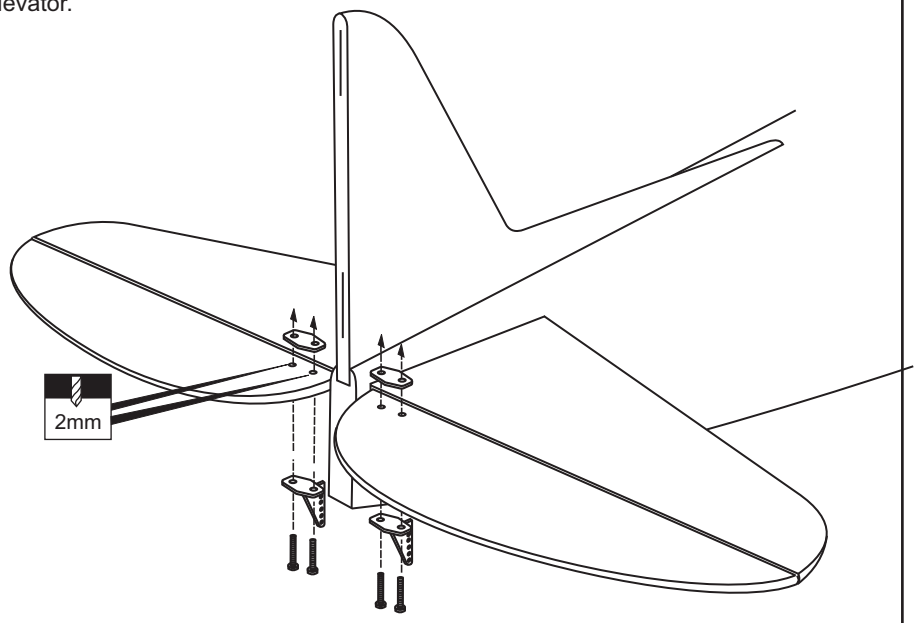


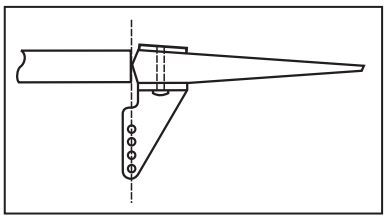
Apply thin CA glue both side



Apply **thin CA** glue on the top of the hinge

Do the same way with the bottom side of elevator and with the second elevator.





Control horn



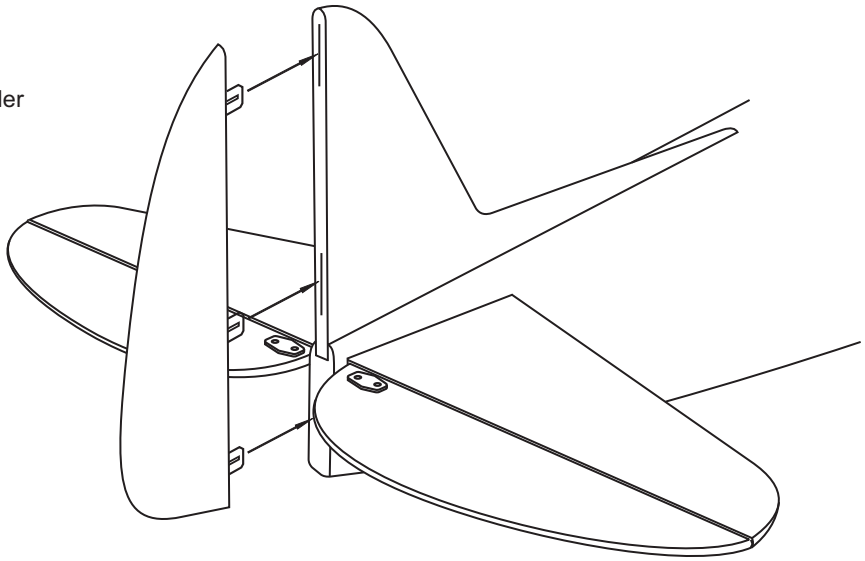
.....2

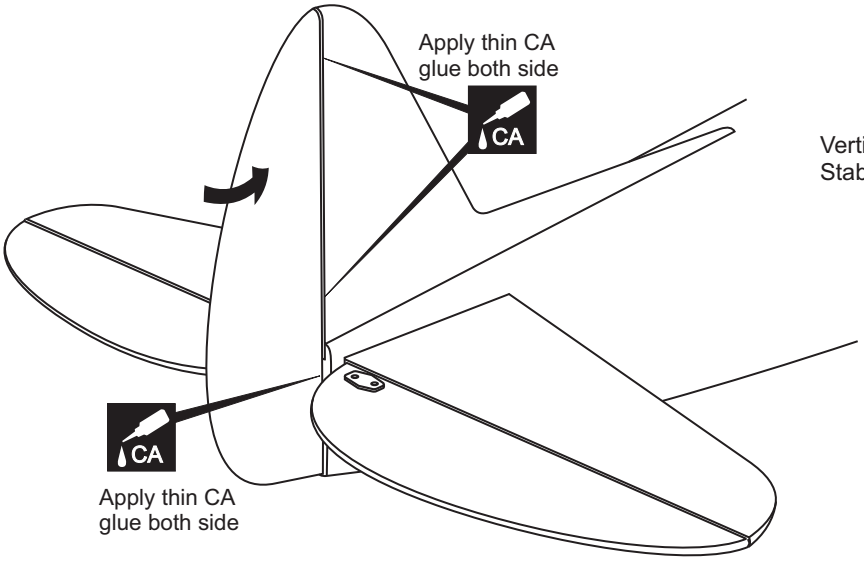
2x12mm screw

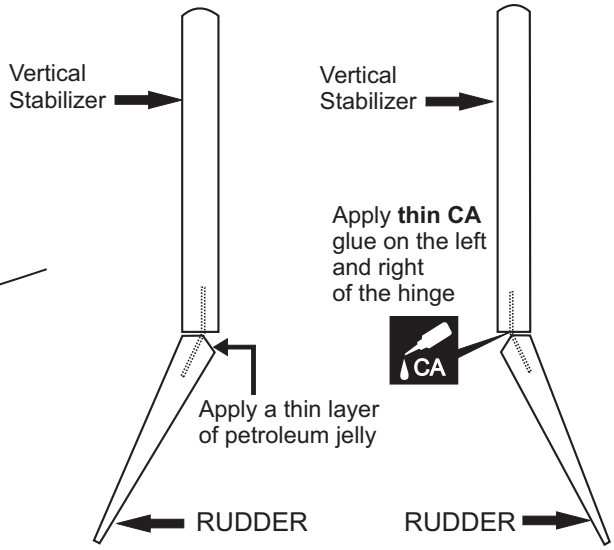
.....4

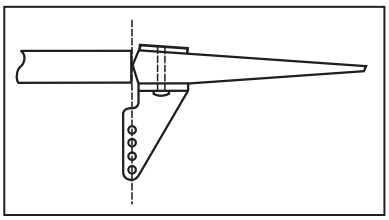
P-47 THUNDERBOLT 16- RUDDER AND CONTROL HORN

Without using glue yet, push the rudder and its hinges into the hinge slots in trailing edge of the vertical stabilizer.









Control horn

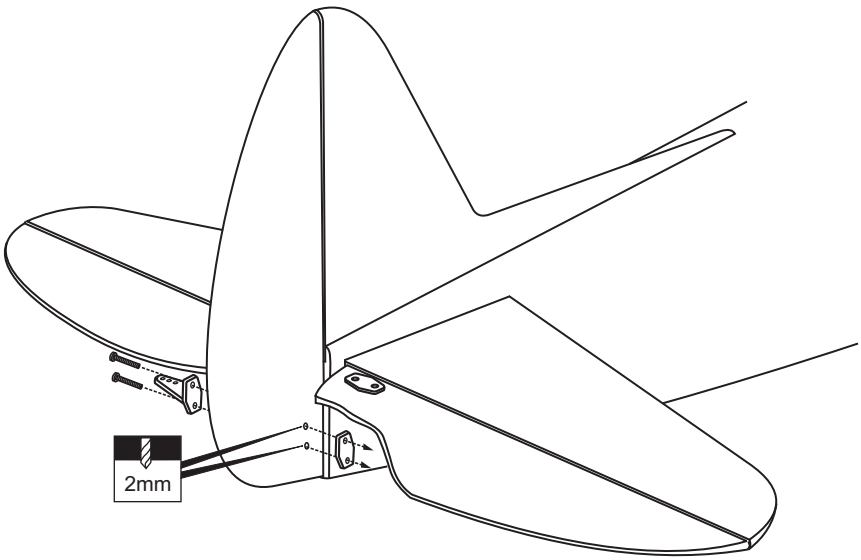


.....3

2x12mm screw



.....6



P-47 THUNDERBOLT 17- TAIL GEAR INSTALLATION

1- Insert the tail wheel pushrod into the hole on the tail gear control horn (as show).

2- Install the tail wheel control horn in place.

3- Instal the tail wheel gear in place.

4- Secure the tail wheel control horn in place using a 5/64”(2mm) screw set, Ensure smooth non-binding movement.

1.2x800mm rod 1

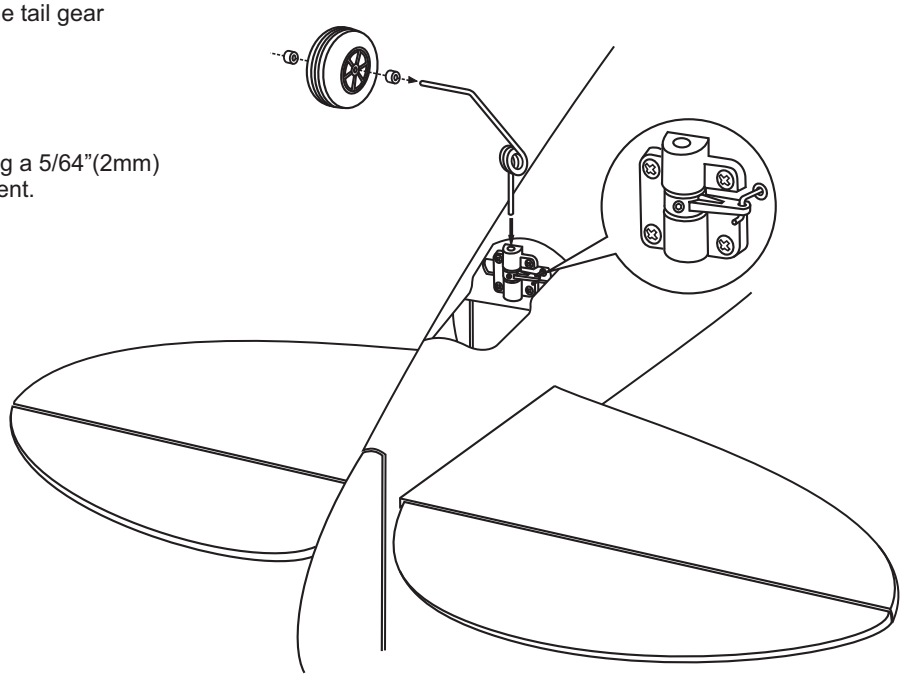
3x3mm screw 1

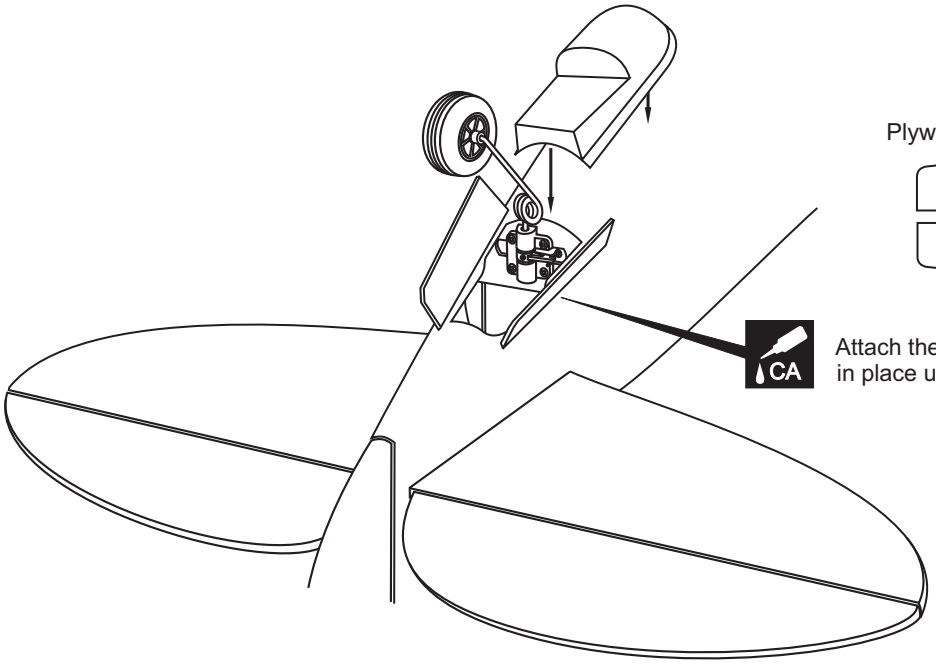
2mm I.D collar 2

Tail wheel control-horn 1

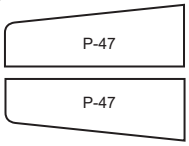
25mm wheel 1

Tail landing gear 1

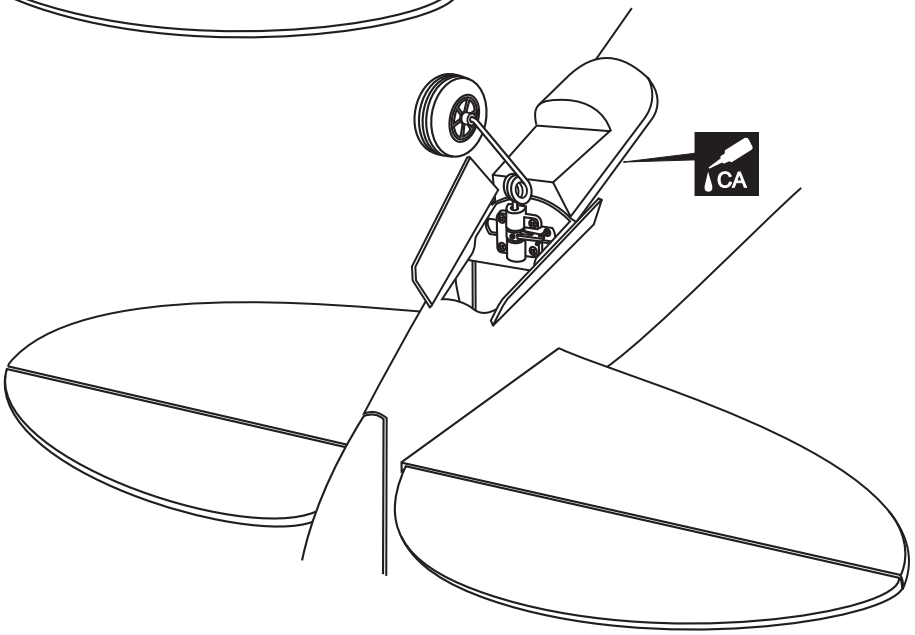




Plywood Tail wheel door

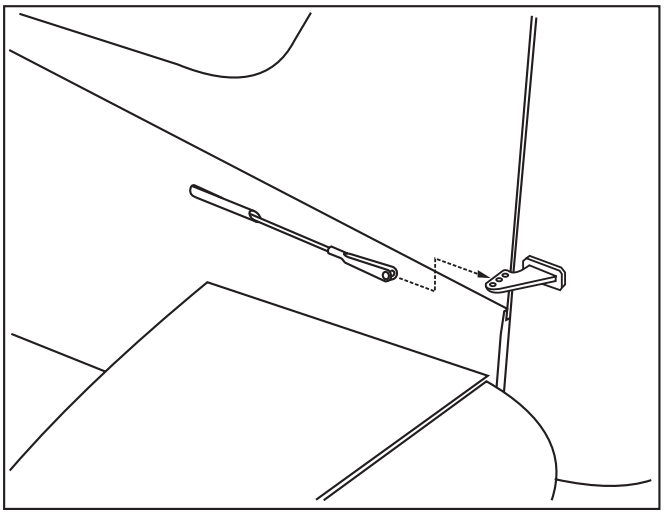


Attach the tail wheel doors in place using CA glue.



P-47 THUNDERBOLT 18- SERVO AND LINKAGES

Insert the rudder push-rod from the rear of the fuselage.
Screw the clevis mid-thread, then connect to the rudder control horn.



Insert the two elevator push-rod from the rear of the fuselage.
Screw the clevis mid-thread, then connect to the elevator control horn.

Steel clevis 3

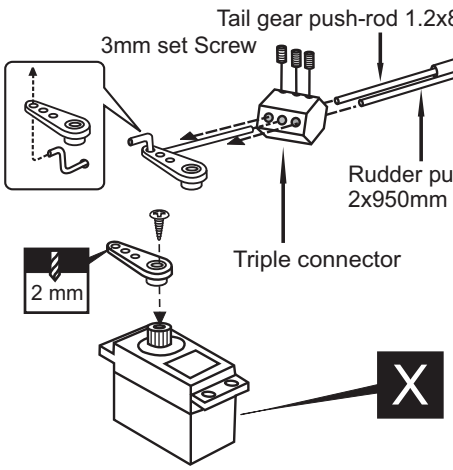
2x950mm rod 3

(2 x120mm) rod 2

(1.2 x500mm) throttle rod 1

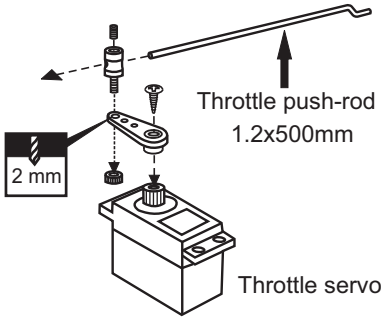
Triple connector 2

2mm 1

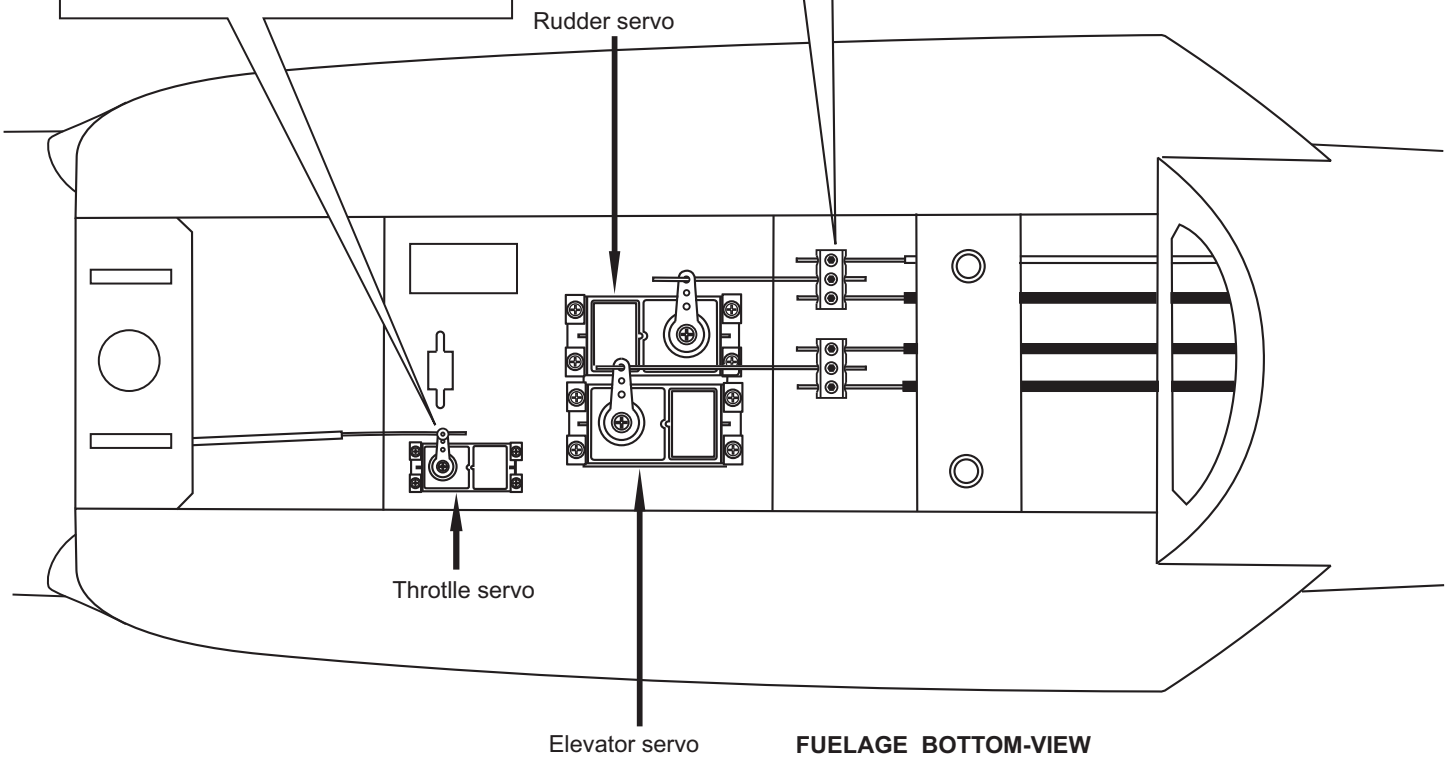


Cut the rudder push-rod excess length.
Cut the tail wheel push-rod excess length.
Insert all into the triple connector and tighten everything.

Do the same way with the elevator linkages.

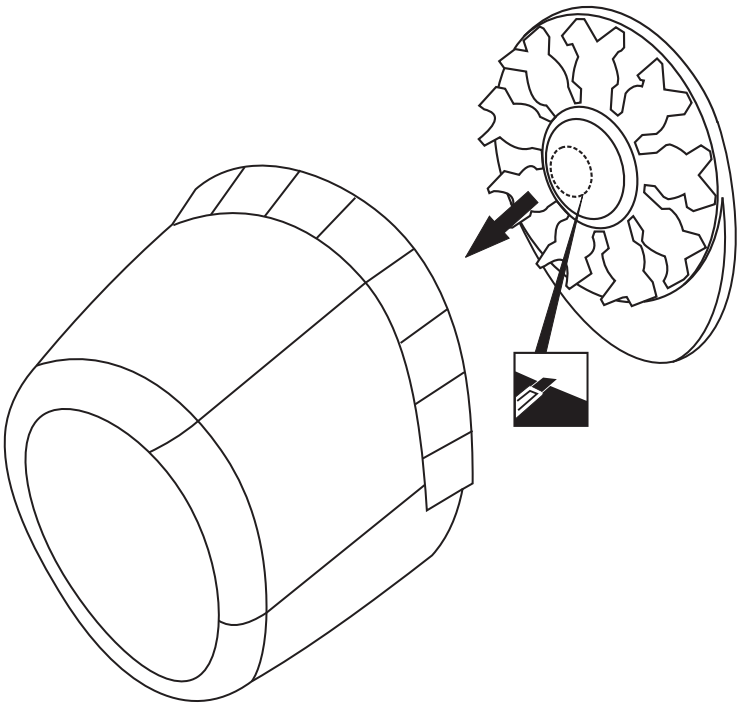


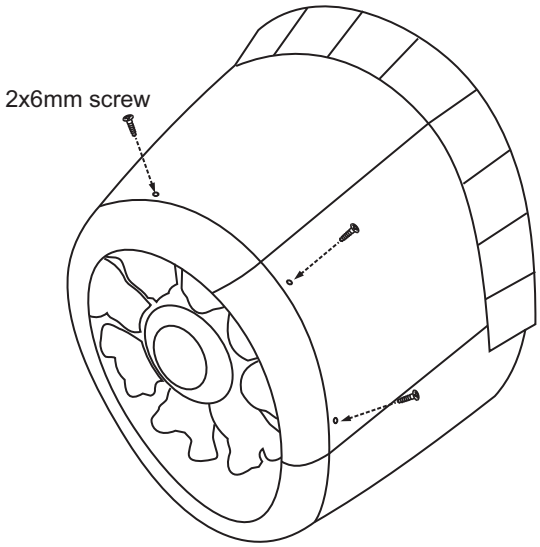
In case of Glow engine using



FUELAGE BOTTOM-VIEW

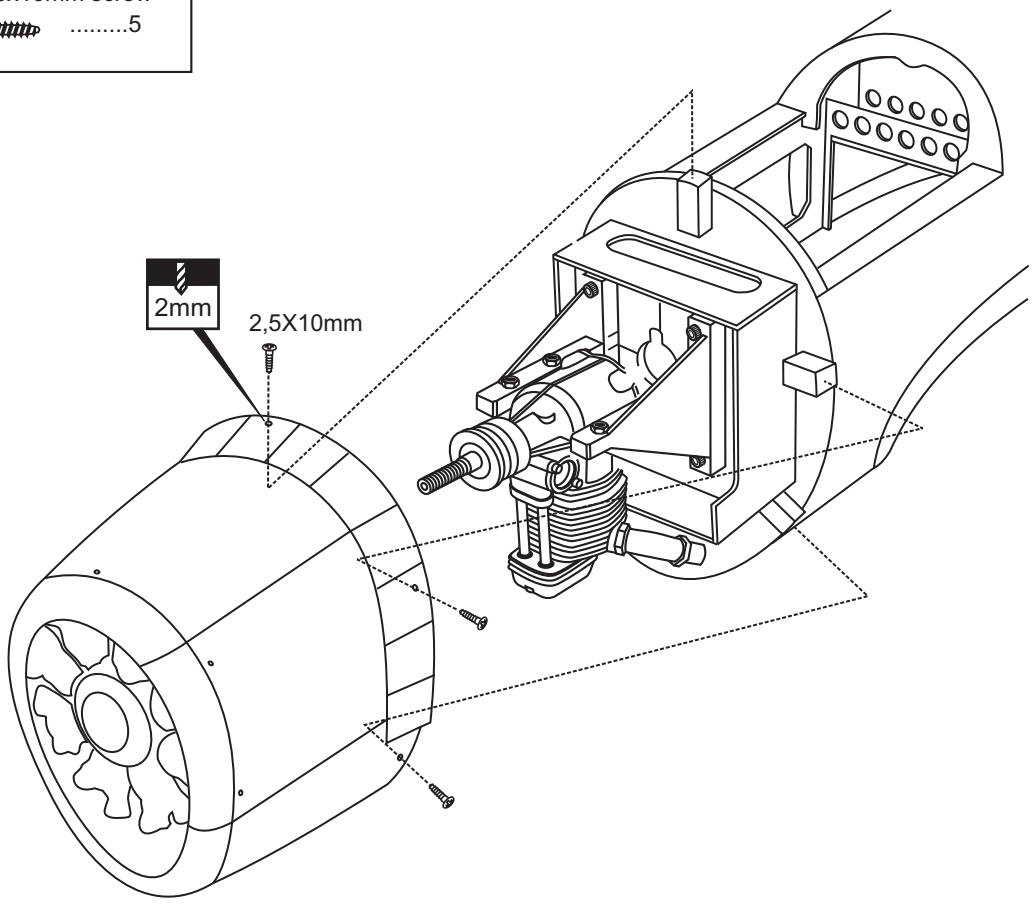
P-47 THUNDERBOLT 19- FIBERGLASS COWL AND DUMMY ENGINE



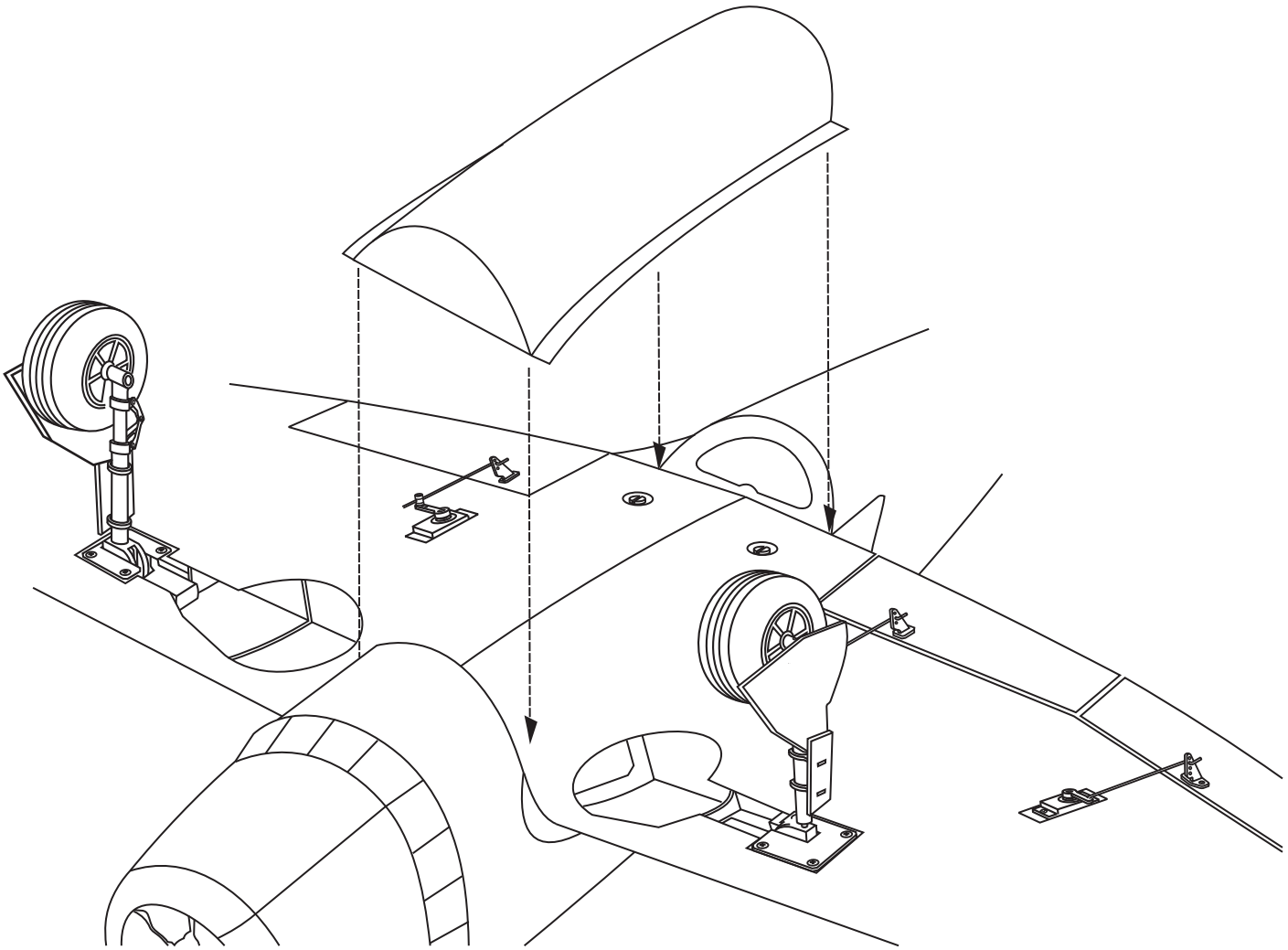


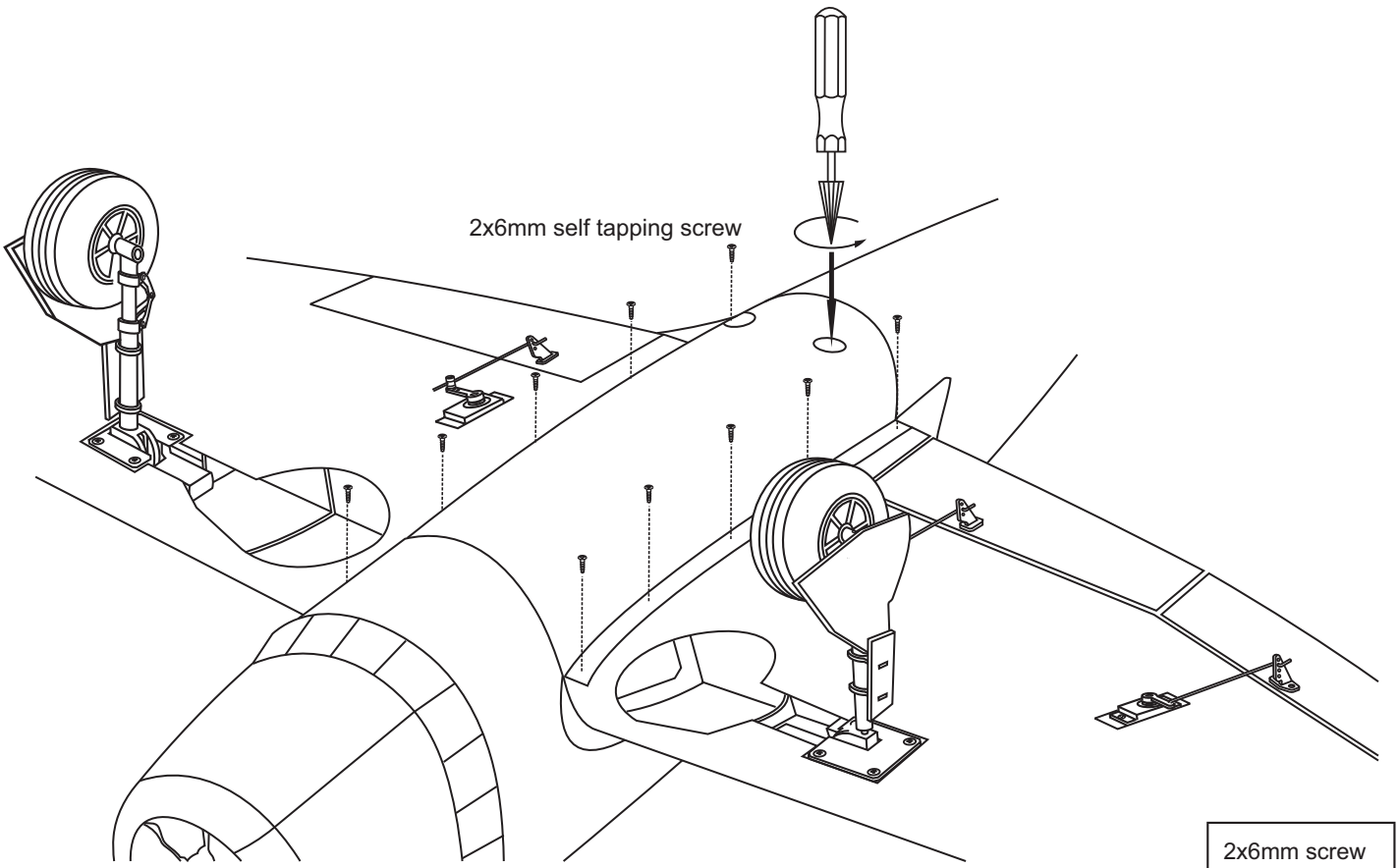
2x6mm screw 6

2.5x10mm screw 5



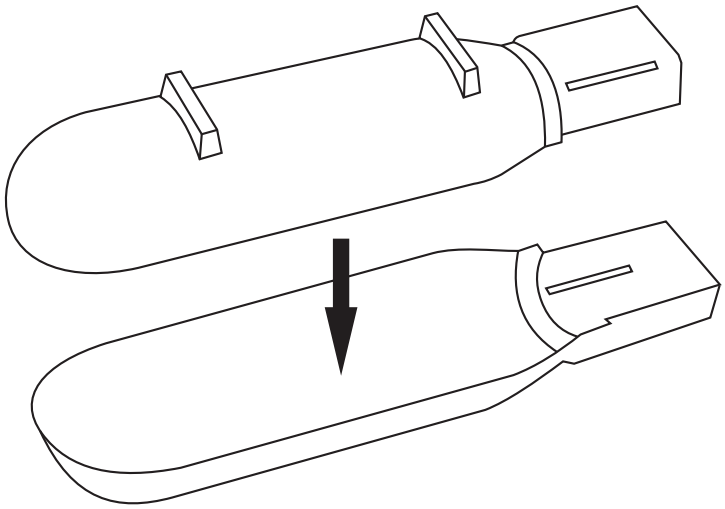
P-47 THUNDERBOLT 20- BOTTOM COVER

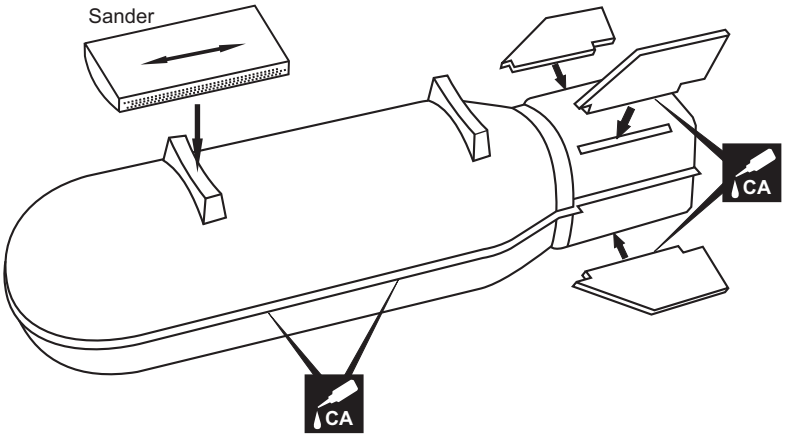


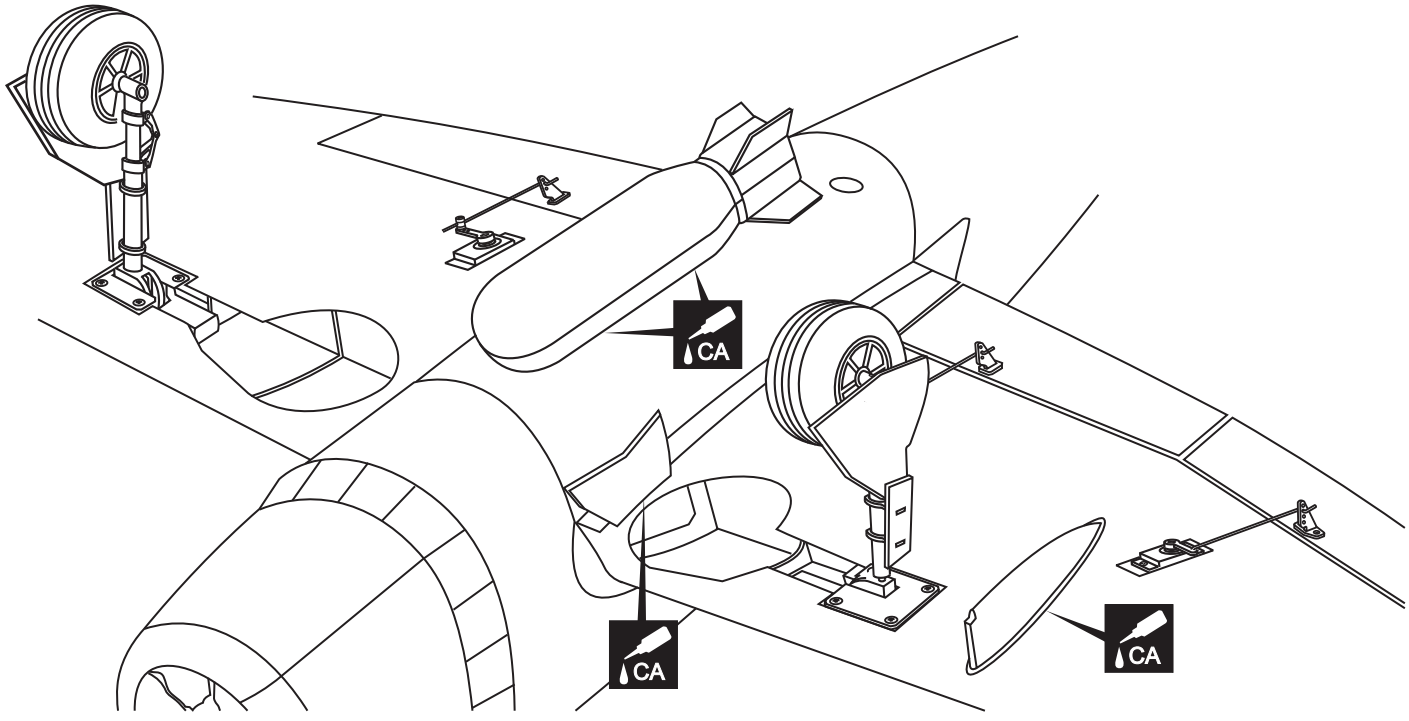


2x6mm screw
.....10

P-47 THUNDERBOLT 21- BOMB ASSEMBLY

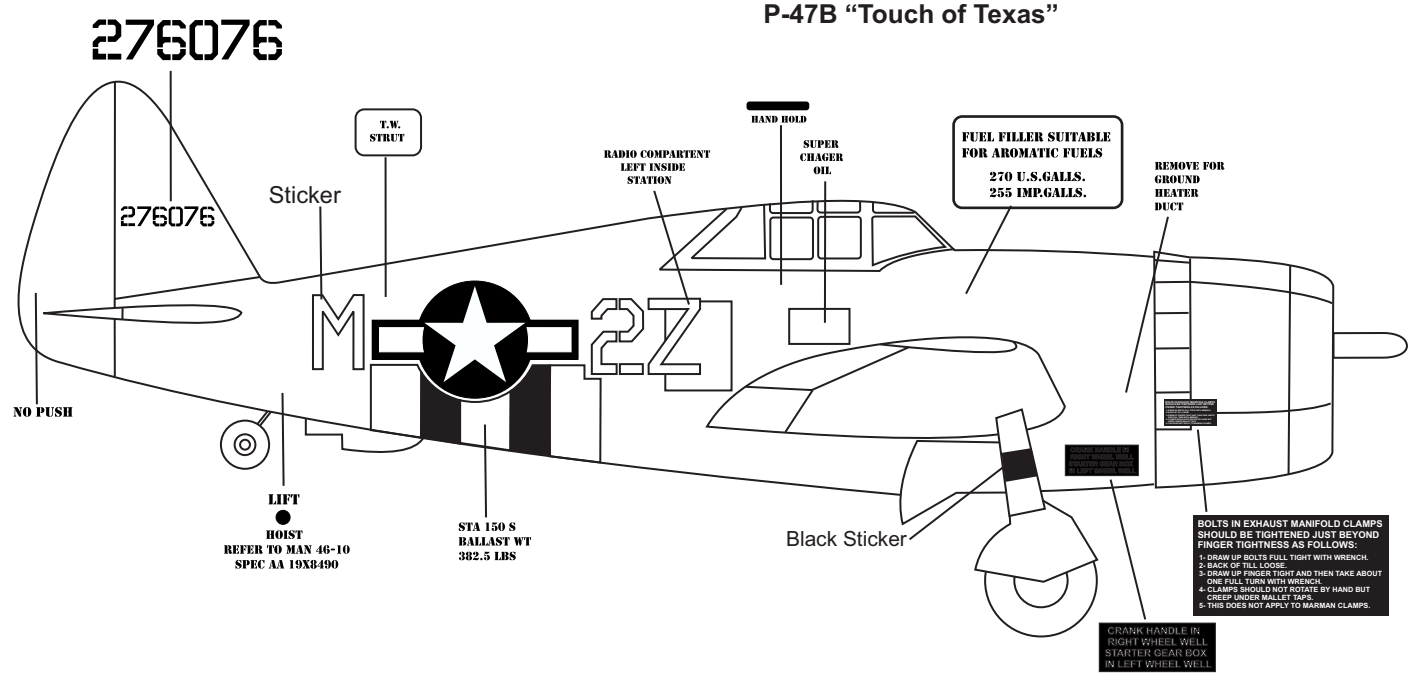


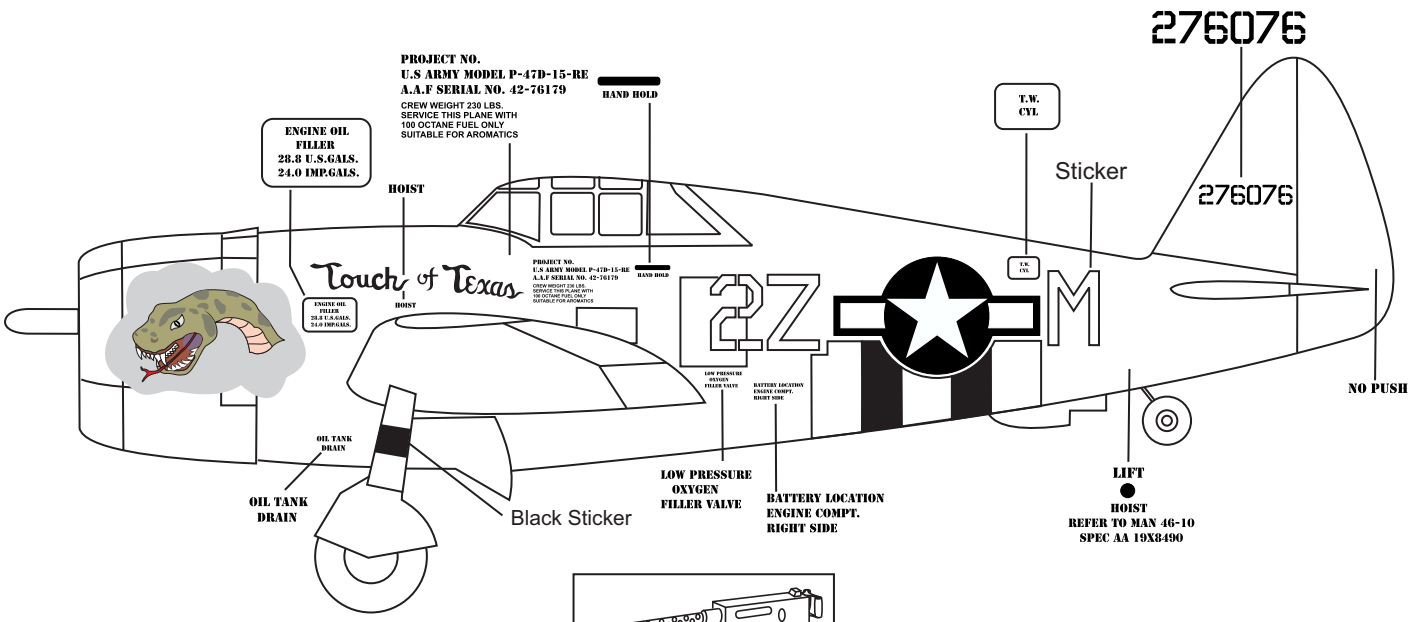


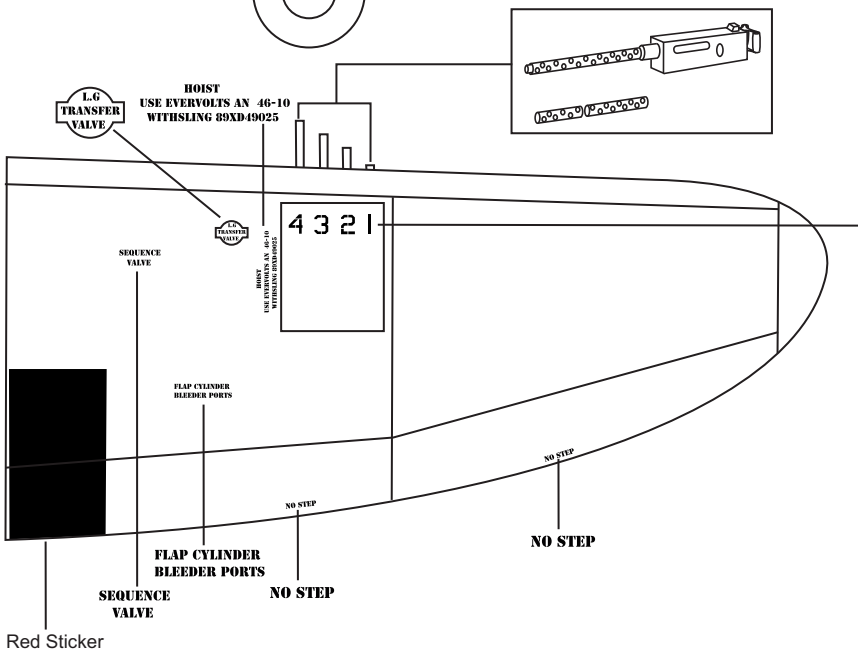


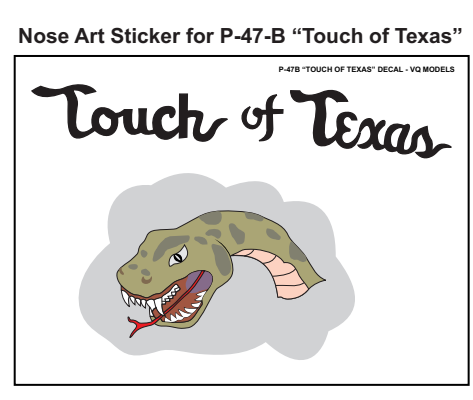
P-47 THUNDERBOLT 22- STICKER

P-47B “Touch of Texas”







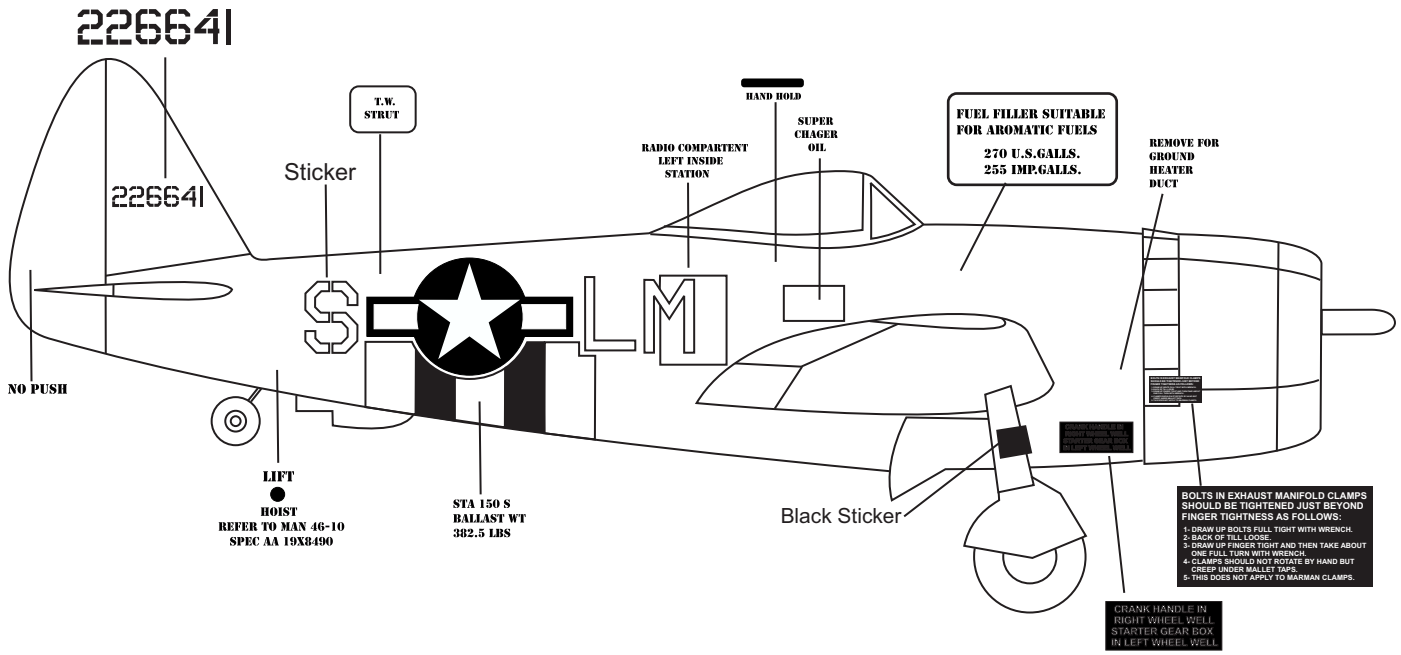


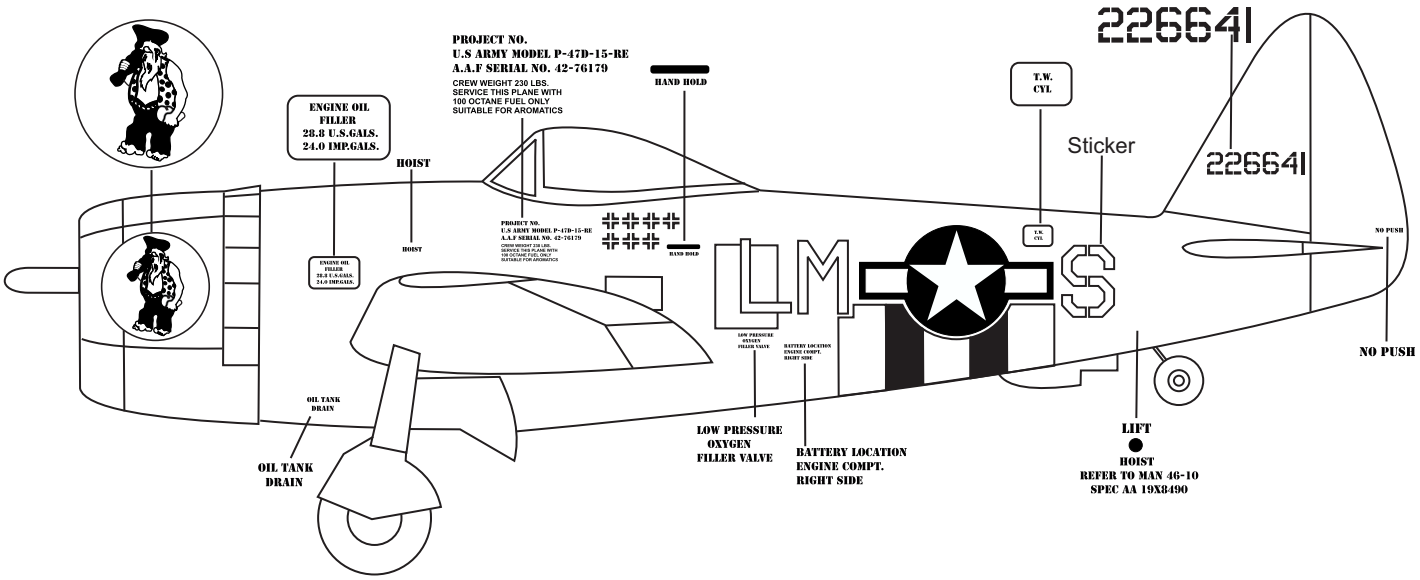
Nose Art Sticker for P-47-B “Touch of Texas”

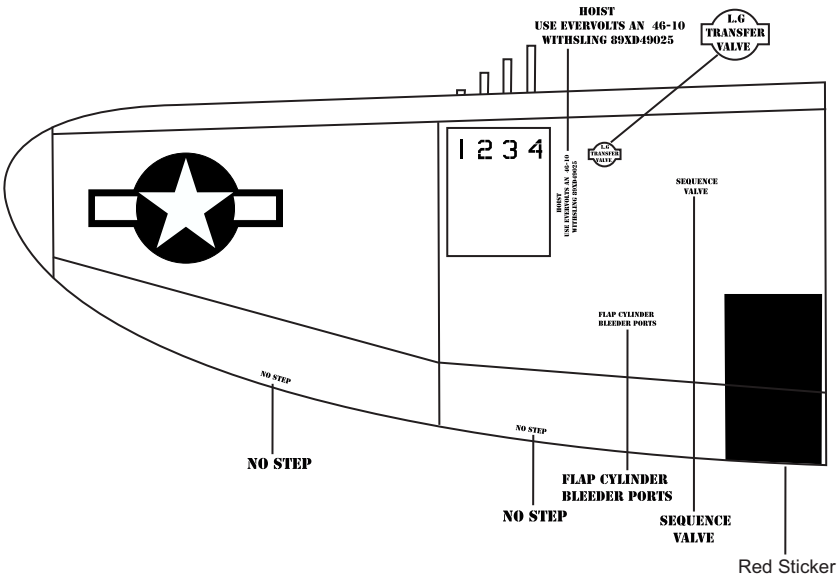
IMPORTANT: Please do not clean your model with strong solvent or pure alcohol to keep the colour of your model not fade.

P-47 THUNDERBOLT 23- STICKER

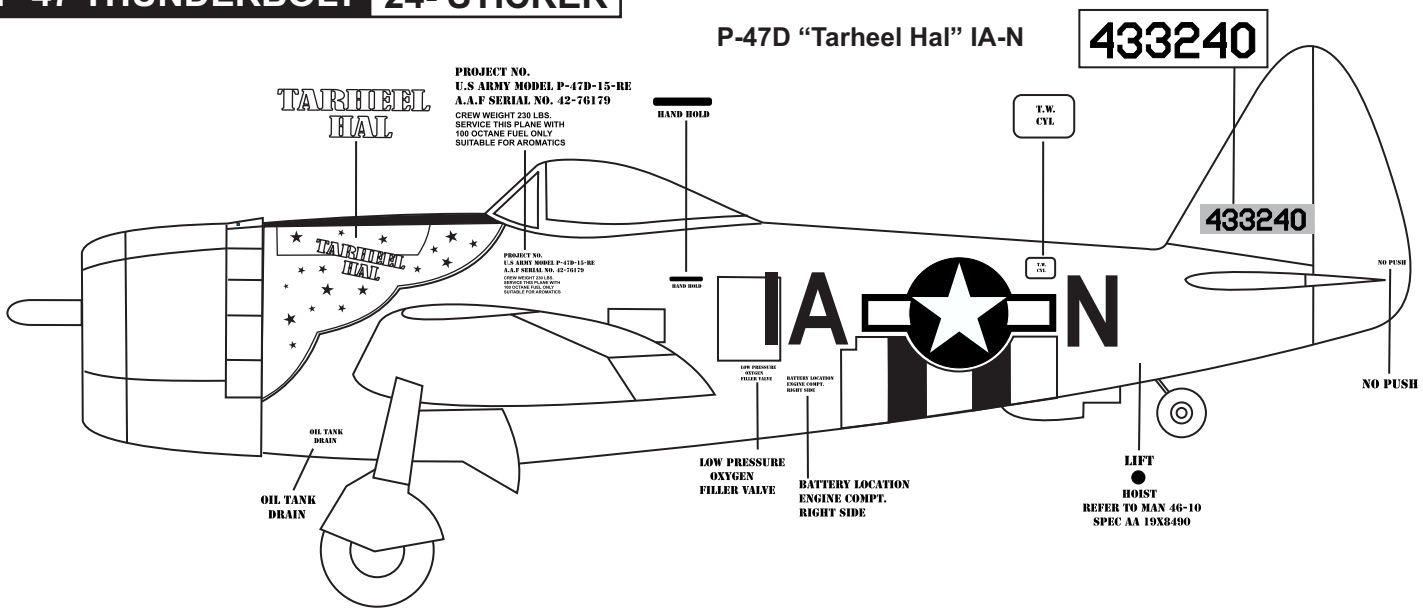
P-47D Camo. LM-Z



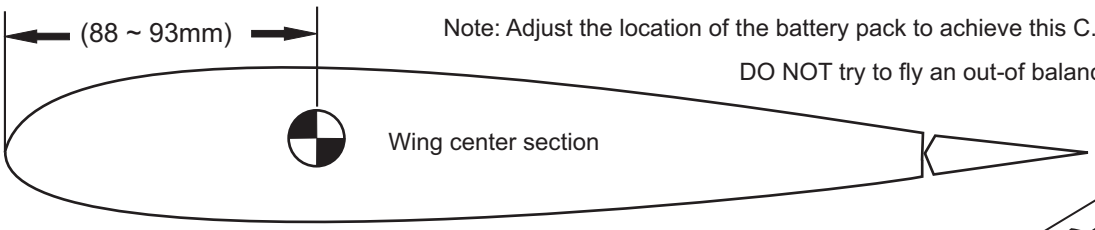




P-47 THUNDERBOLT 24- STICKER

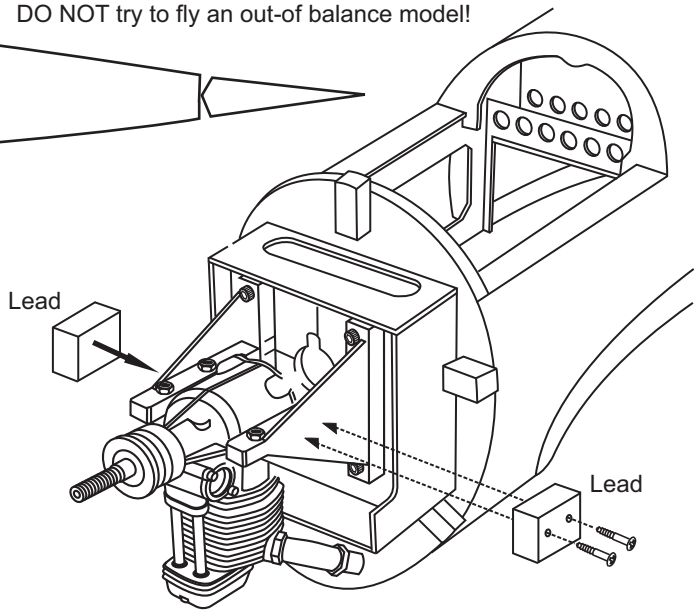


P-47 THUNDERBOLT 25- BALANCE



Note: Adjust the location of the battery pack to achieve this C.G location.

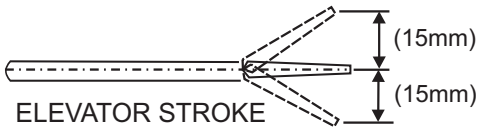
DO NOT try to fly an out-of balance model!

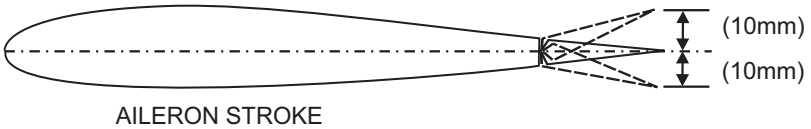


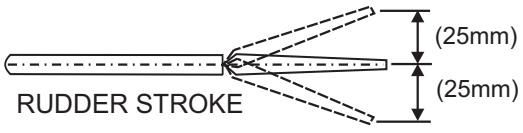
How to add nose weight

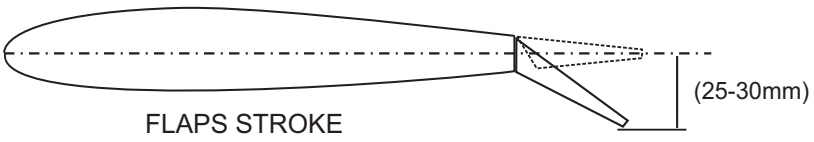
To get the correct C.G., Several strips of lead weight were required in the nose of this model .
To minimize the amount of weight required, it is desirable to position the weight as far forward as possible.
IMPORTANT: Recheck the C.G. After the weight has been installed.

P-47 THUNDERBOLT 26- CONTROL SURFACE









Adjust the travel of the control surfaces to achieve the values stated in the diagrams.
These value will be suitable for average flight requirements. Adjust the values to suit your particular needs.