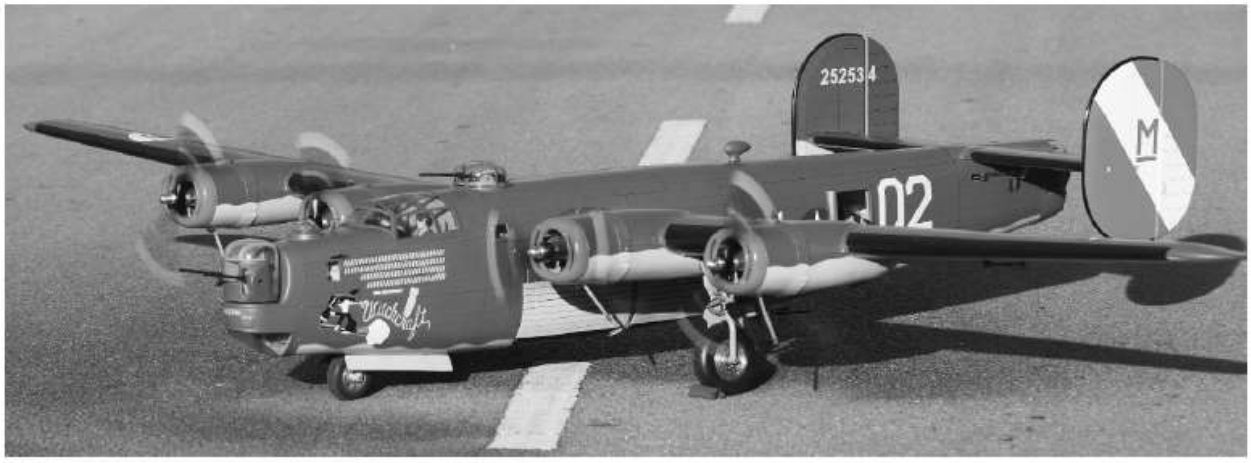
Radio control model / Flugmodel

B-24 LIBERATOR

ALMOST READY TO FLY



ALL BALSA AND PLYWOOD CONSTRUCTION

Instruction manual / Montageanleitung

SPECIFICATIONS

Wingspan:.....2800mm
Length:.....17000mm
Electric Motor:.....See next pager
Glow Engine:.....21-27 2-T / 40 4-T
RTF Weight: 10.5Kg (will vary with equipment use)
Radio:.....9 Channel / 11 Servos
Function: Ailerons-Elevator-Rudder-Throttle Flaps-Optional Retractable Landing Gear.

TECHNISCHE DATEN

Spannweite:.....2800mm
Länge:.....1700mm
Elektroantrieb.....(siehe nächste Seite)
Verbrennerantrieb:.....21-25 2T / 40 4T
Fluggewicht:.....10.5Kg
Fernsteuerung.....9 Kanal / 11 servos

VQ Warbirds

"Keep 'Em Flying"

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B-24 LIBERATOR HISTORY:

The Consolidated B -24 Liberator was designed with the high aspect -ratio Davis Wing. In combat, the wing had drawbacks as far as durability was concerned, but it increased fuel efficiency and gave the B-24 a longer range than the Boeing B -17 Flying Fortress. On December 29, 2014, the Consolidated B -24 Liberator, one of the most famous bombers of World War II, turned 75 years old. More than 18,400 of this type were built, making it the most produced American wartime aircraft. It gained a distinguishe d war record with operations in the European, Pacific, African and Middle Eastern theaters. It followed in the footsteps of the other great American WW II bomber, the B-17. The B-24 brought about the following improvements over the B-17: • A longer range. • A higher top speed. • A heavier bomb load. • Tricycle landing gear. • A quantum leap in wing design and performance

The B-24J was produced in greater numbers than any other series and was the only version produced in all five plants.

In the San Diego plant, it went from producing the "D" straight to the "J." The main difference between the D -CO and the J-CO was the addition of the Consolidated A -6A nose turret, which was almost identical to the tail turret. Other defensive armament included the Martin A-3C upper turret, Briggs A-13 ball turret and flexible 0.50 caliber machine guns at the open window waist positions. A total of 6,678 B-24Js were built.

More B-24's were built than any other American airplane. It edged out the B -17 on most performance criteria (speed, range, bombload).

It's crewmen claimed 2,600 enemy aircraft shot down. With it's great range, it performed anti-sub work in the Atlantic and heavy bomber support in the Pacific.

RADIO REQUIRED: NORMAL EP

- Radio 9 channels with 11 servos
- 5 high torque servos (2x ailerons + 2x elevator + 1x nose wheel)
- 2 mini 9gr servo for rudder.
- 4 mini servo for flaps

RADIO REQUIRED: NORMAL GP

- Radio 9 channels with 15 servos.
- 5 high torque servos (2x ailerons + 2x elevator + 1x nose wheel)
- 6 mini 9gr. servo (2x rudder + 4x throttle).
- 4 mini 17gr. servo for flaps.

RADIO REQUIRED: NORMAL GP - FULL OPTION

- Radio 12 channels with 23 servos.
- 5 high torque servos (2x ailerons + 2x elevator + 1x nose wheel)
- 6 mini 9gr. servo (2x rudder + 4x throttle).
- 12 mini 17gr. servo (4x flaps + 4x turrets gun + 4x drop bomb)

GLOW ENGINE REQUIRED

.21 to .25 two stroke engine

.40 four stroke engine

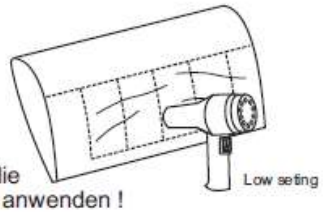
Recommended 4-Stroke Engines
Saito FA-40a

BRUSHLESS MOTOR REQUIRED

650 Watt brushless motor.

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 !

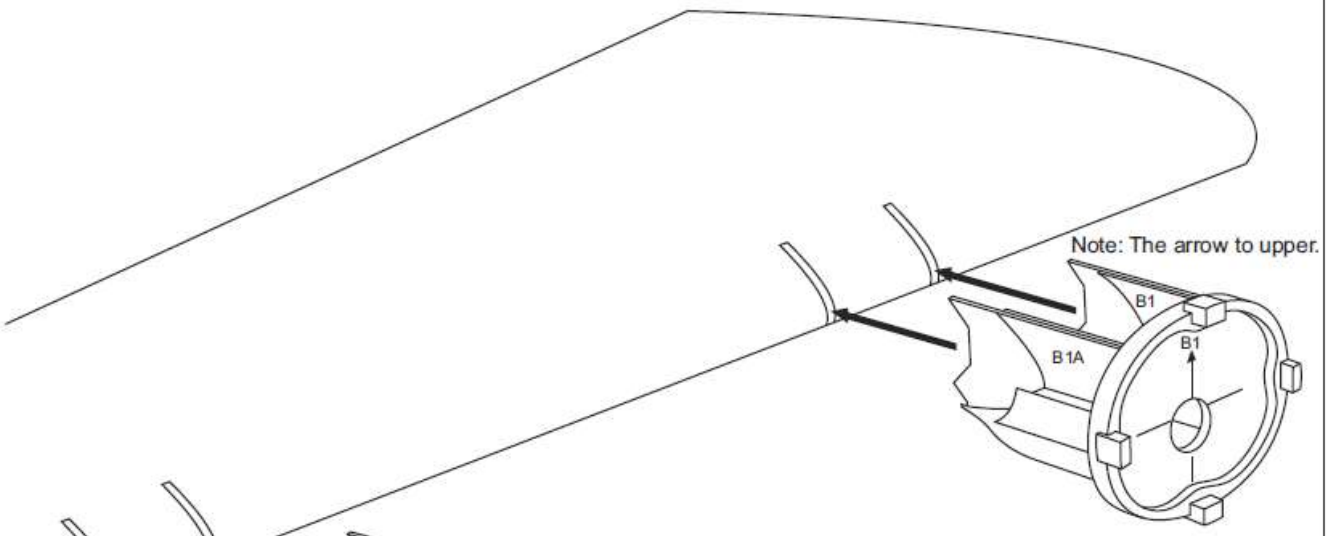


Symbols used throughout this instruction manual, comprise:

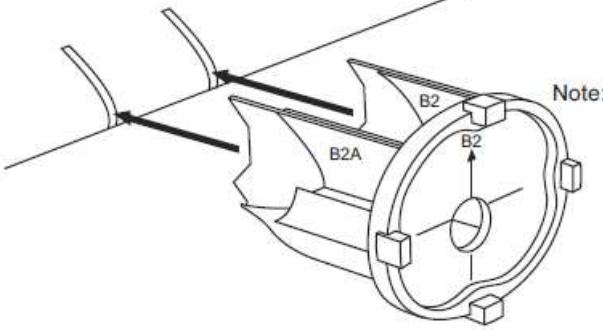
- 1.5mm — Drill holes using the stated size of drill (in this case 1.5 mm)
- ! — Take particular care here
- Hatched-in areas: remove covering film carefully
- Check during assembly that these parts move freely, without binding
- A B — Use epoxy glue
- CA — Apply cyano glue
- L/R — Assemble left and 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.

B-24 LIBERATOR 1- MOTOR MOUNT

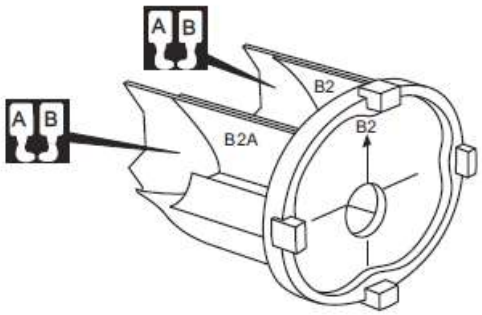


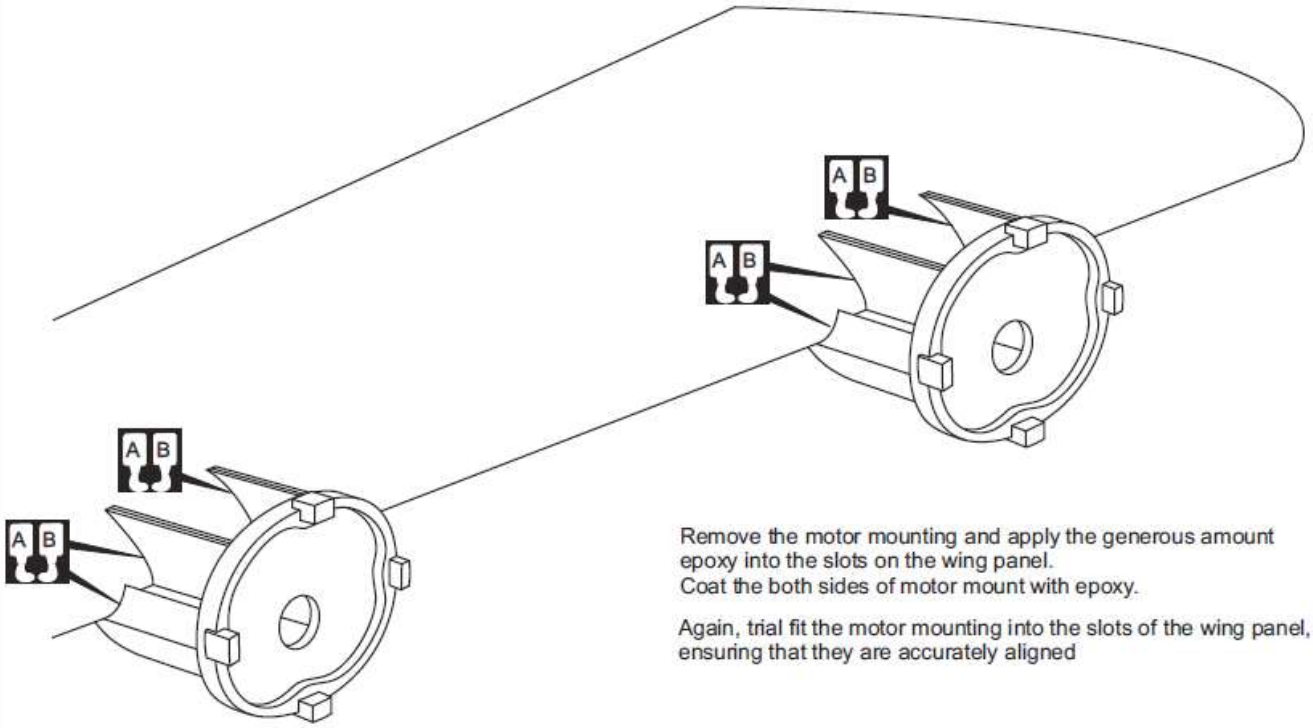
B1



B2

Trial fit the motor mounting into the slots on the wing panel.
If the fit is overly tight, it may be necessary to lightly sand the slots or the motor mount.
Do not glue at this time.

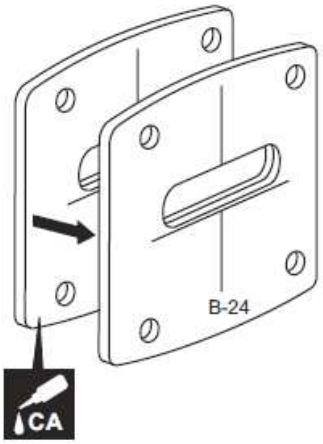


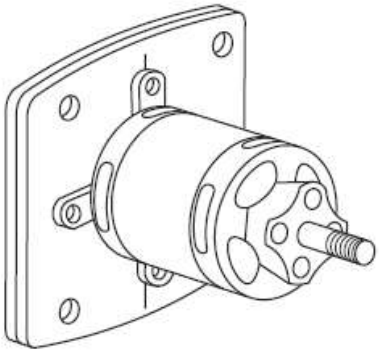


Remove the motor mounting and apply the generous amount epoxy into the slots on the wing panel.
Coat the both sides of motor mount with epoxy.

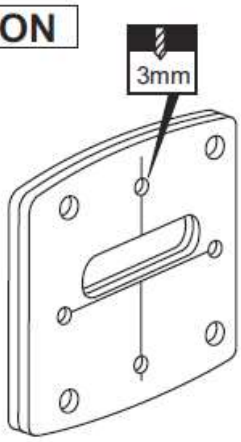
Again, trial fit the motor mounting into the slots of the wing panel, ensuring that they are accurately aligned

B-24 LIBERATOR 2- BRUSHLESS MOTOR INSTALLATION

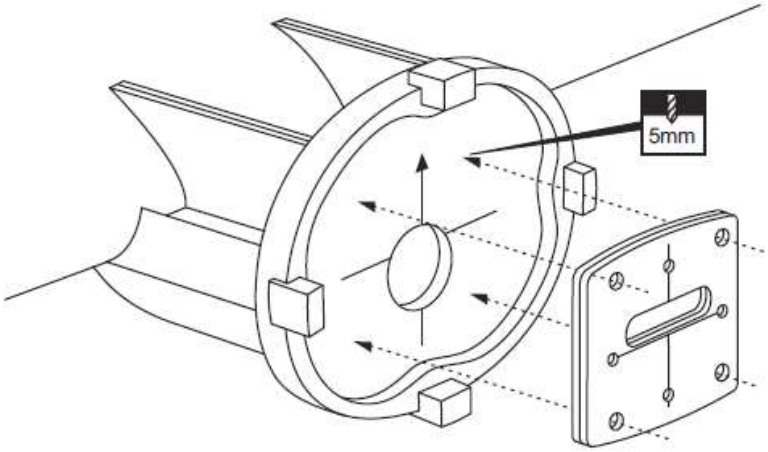




Using a aluminum motor mounting plate as a template, mark the plywood motor mounting plate where the four holes are to be drilled.

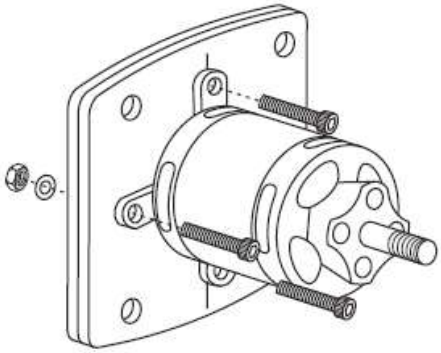


Remove the aluminum motor mountin plate and drill a 1/8"(3mm) hole throug the plywood at each of the four marks marked .



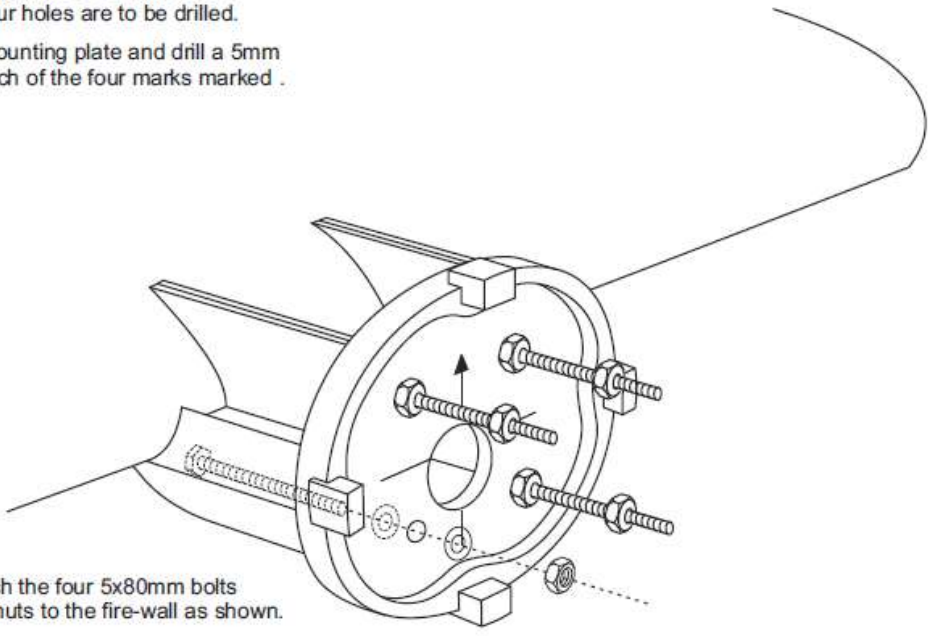
Using a wooden motor mounting plate as a template, mark the fire-wall where the four holes are to be drilled.

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



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

3mm bolt / nut...4

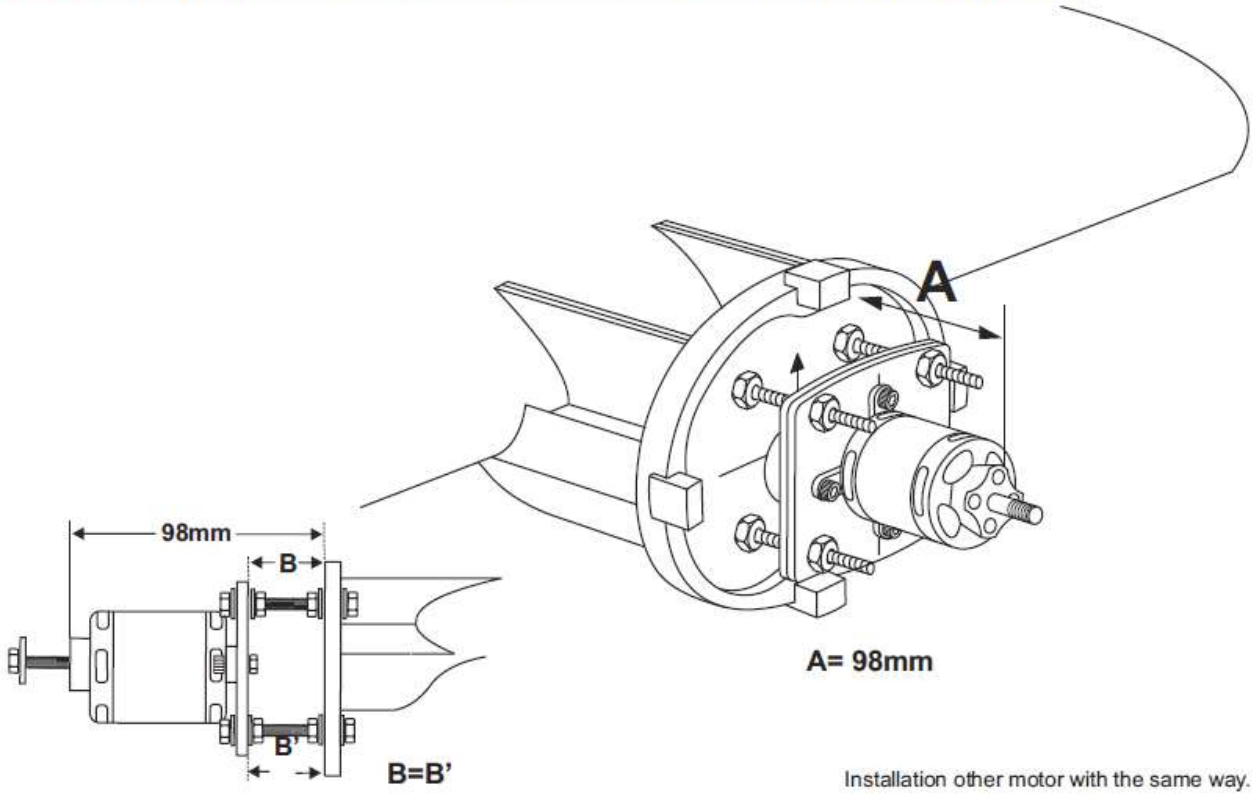


Attach the four 5x80mm bolts and nuts to the fire-wall as shown.

5x80mm bolt.....4
5mm nut.....12
5mm washer...16

Do the same way with second wing halves.

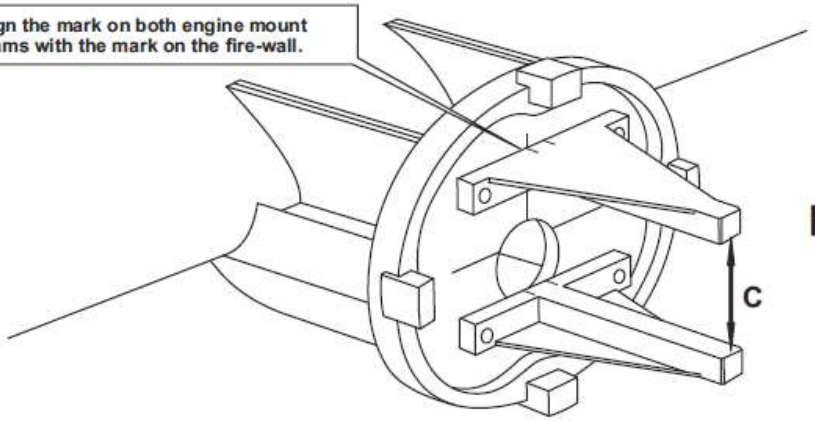
B-24 LIBERATOR 3- BRUSHLESS MOTOR INSTALLATION



Installation other motor with the same way.

B-24 LIBERATOR 4- GLOW ENGINE INSTALLATION

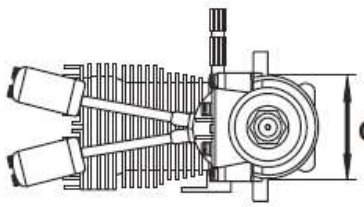
! Align the mark on both engine mount beams with the mark on the fire-wall.



pic.4a

Attach the engine mount beams onto the fire-wall so the distance between of two engine mount beams is "**C**", and **D=D'** as show (see pic. 4c)
Secure the engine mount beams onto the fire-wall with litter CA glue.

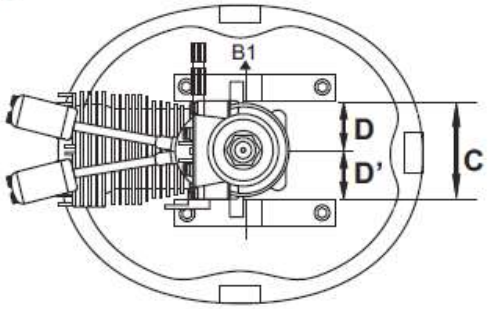
Using a pencil or felt tipped pen, mark the fire wall where the four holes are to be drilled.



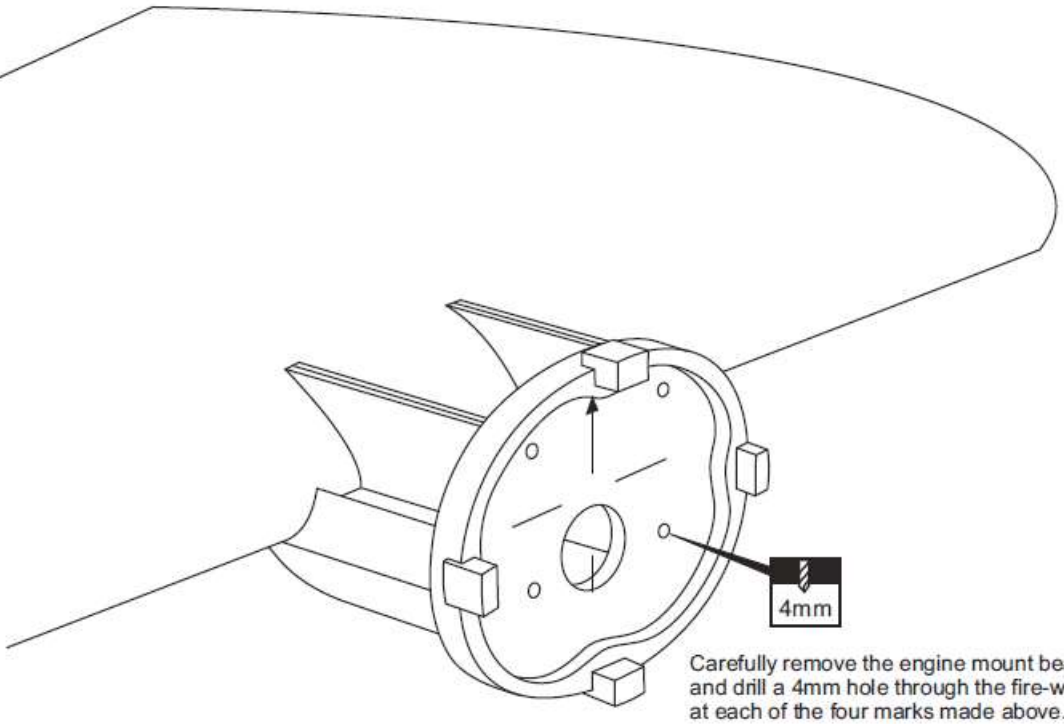
pic.4b

Note: Saito FA-40a four stroke

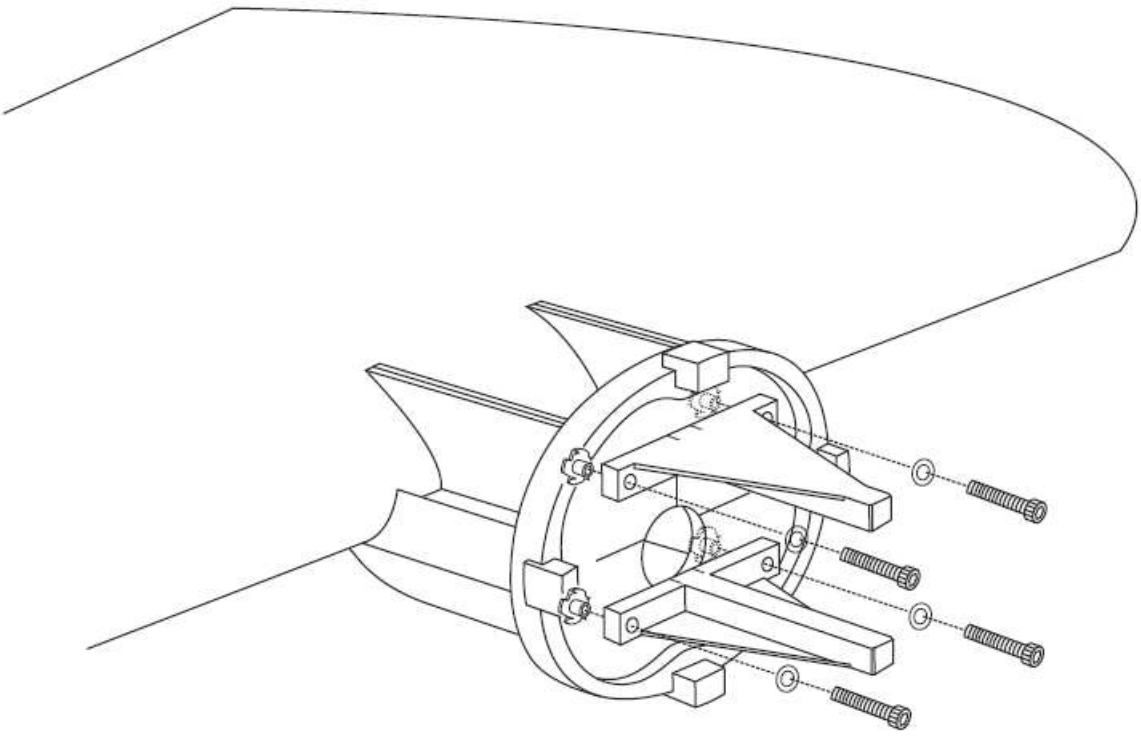
pic.4c



B-24 LIBERATOR 5- GLOW ENGINE INSTALLATION



Carefully remove the engine mount beams and drill a 4mm hole through the fire-wall at each of the four marks made above.



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

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

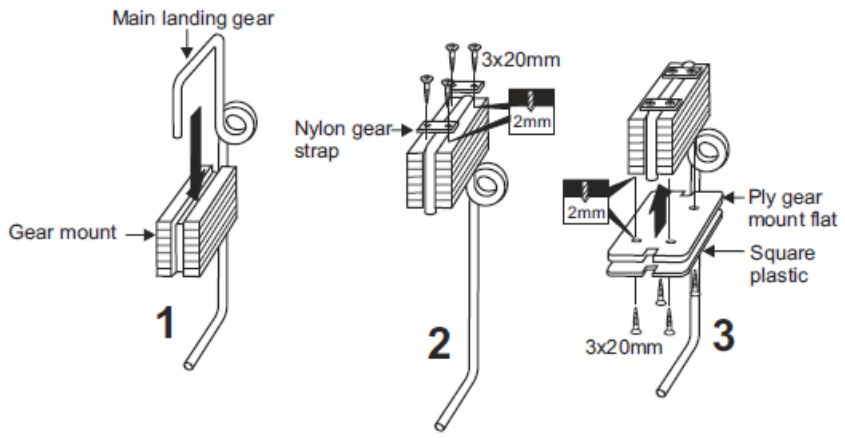
Position the engine to the engine mounts so the distance from the prop hub to the fire-wall is 98mm.
Mark the engine mounting plate where the four holes are to be drilled.

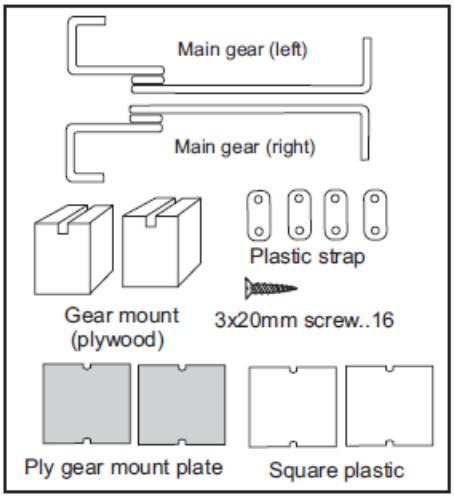
Remove the engine and drill a 3mm holes through the beam at each of the four marks made above.

4x25mm screw - washer 4

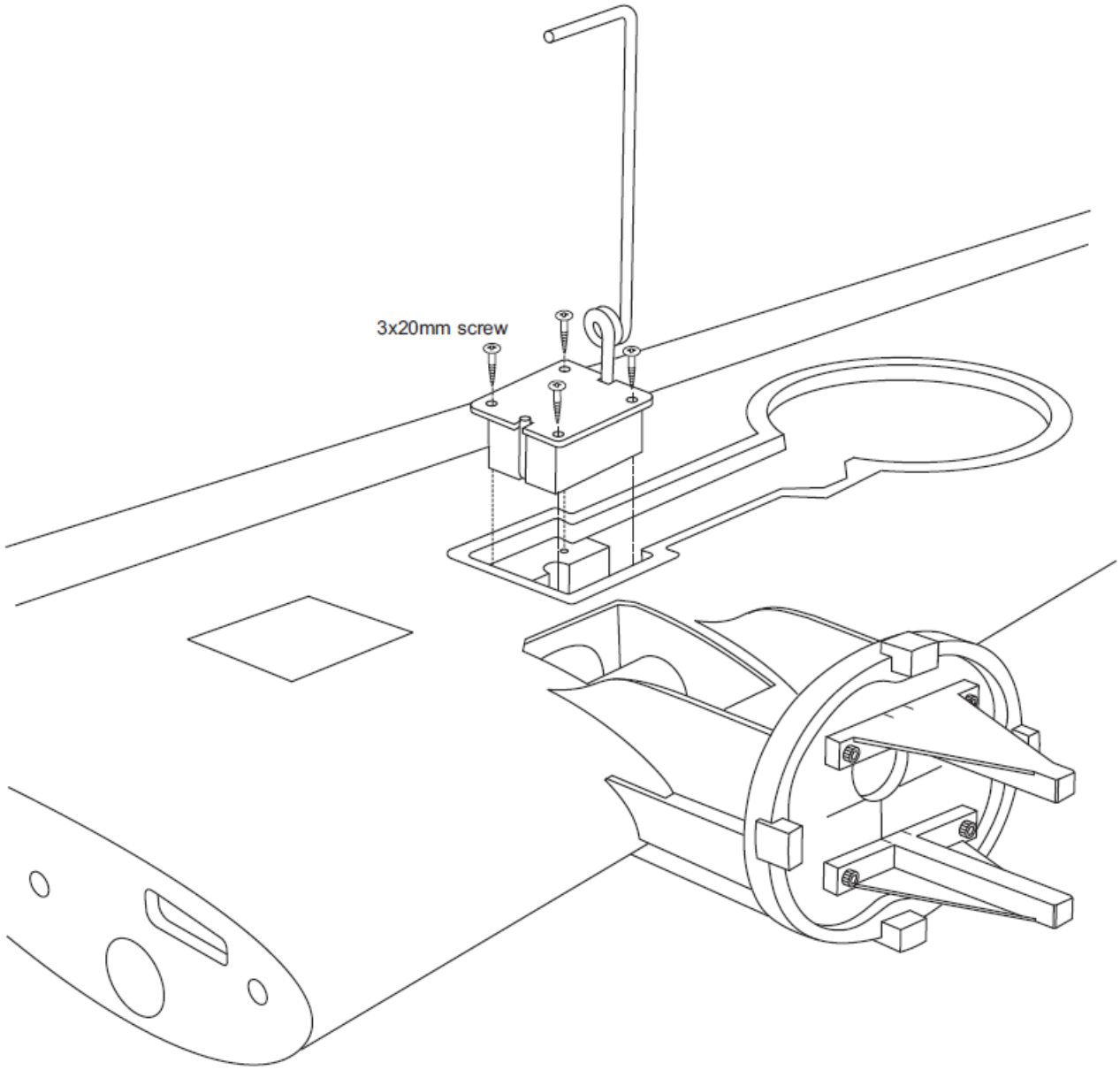
Blind-nut - wooden washer 4

B-24 LIBERATOR 6- FIXED GEAR ASSEMBLY

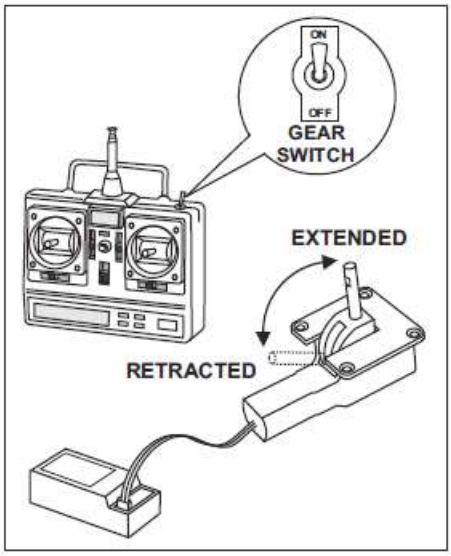




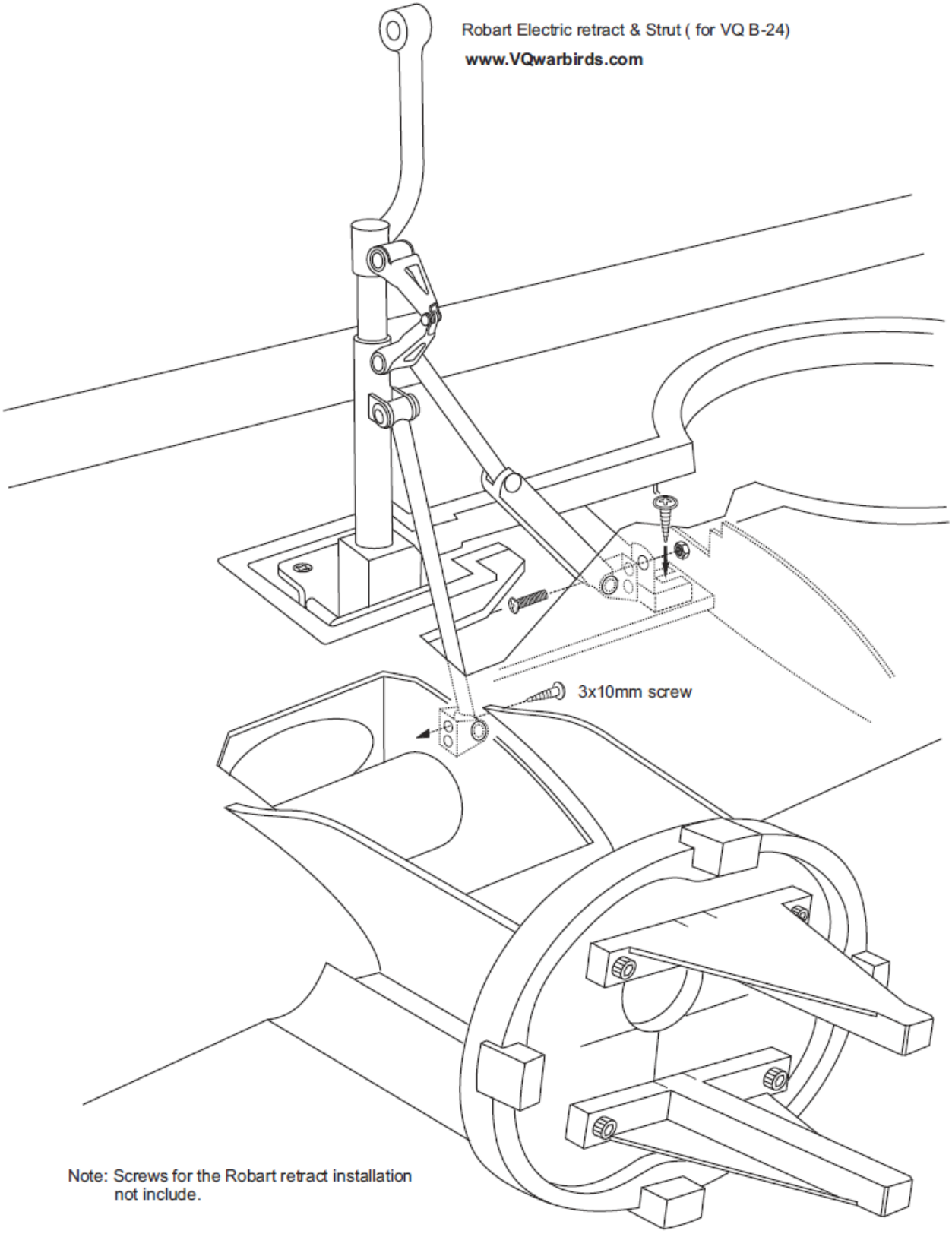
B-24 LIBERATOR 7- FIXED GEAR INSTALLATION



B-24 LIBERATOR 8- ERETRACT WITH STRUT INSTALLATION



B-24 LIBERATOR 9- ERETRACT WITH STRUT INSTALLATION

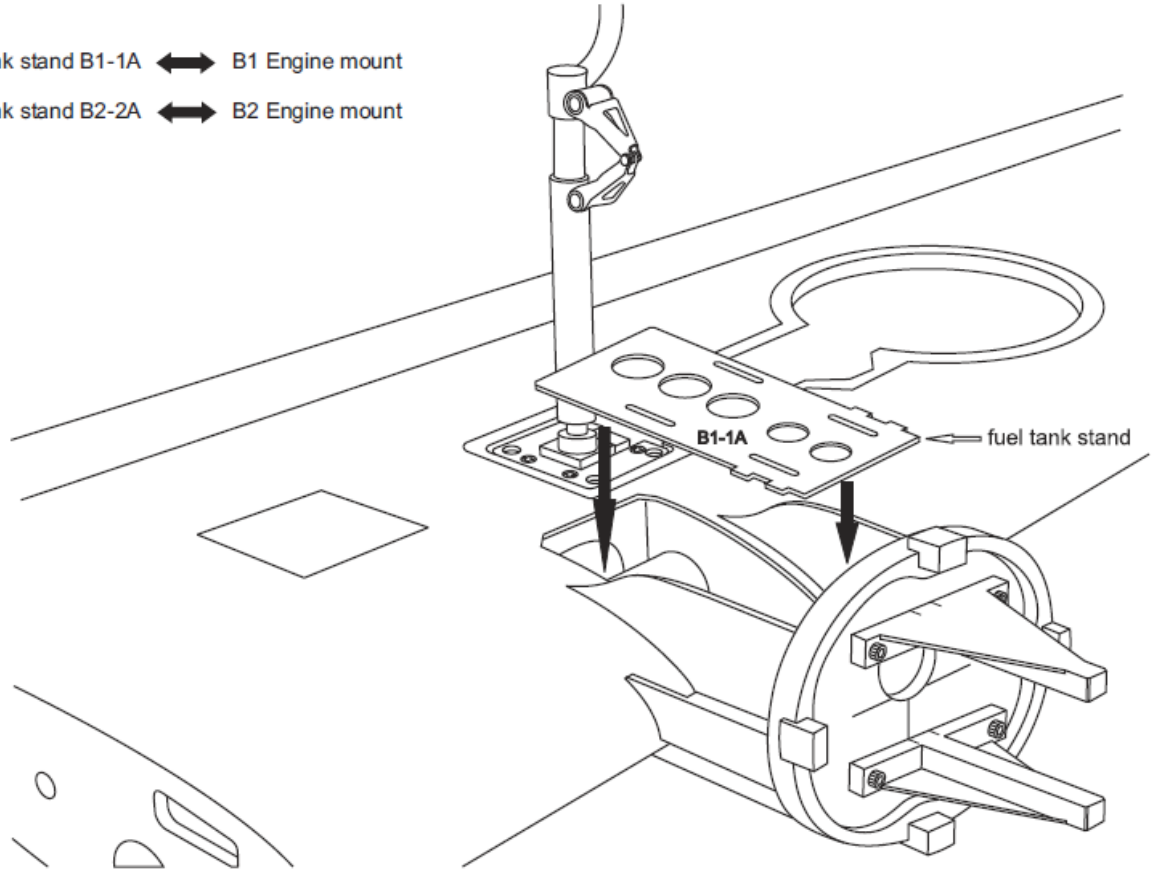


Note: Screws for the Robart retract installation not include.

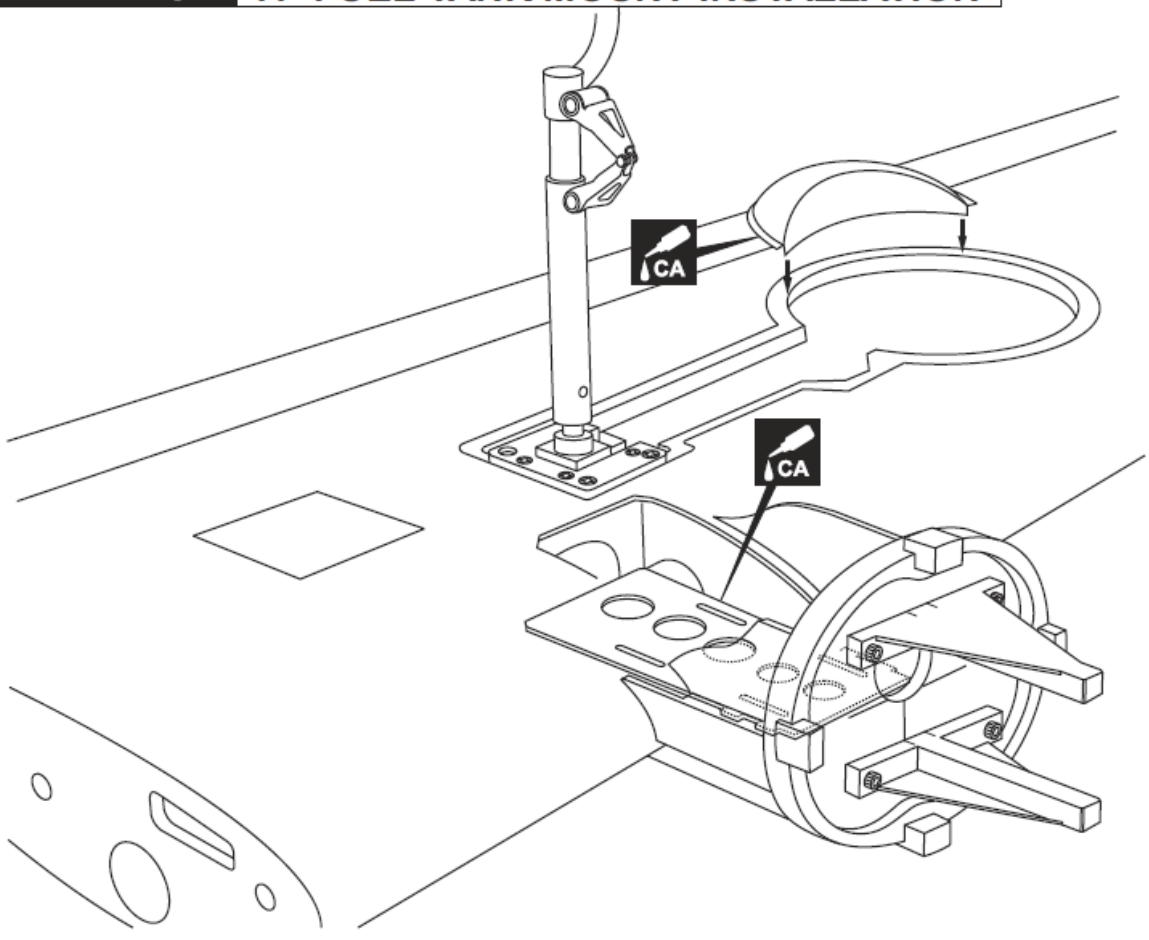
B-24 LIBERATOR 10- FUEL TANK MOUNT INSTALLATION

Fuel-tank stand B1-1A ⟷ B1 Engine mount

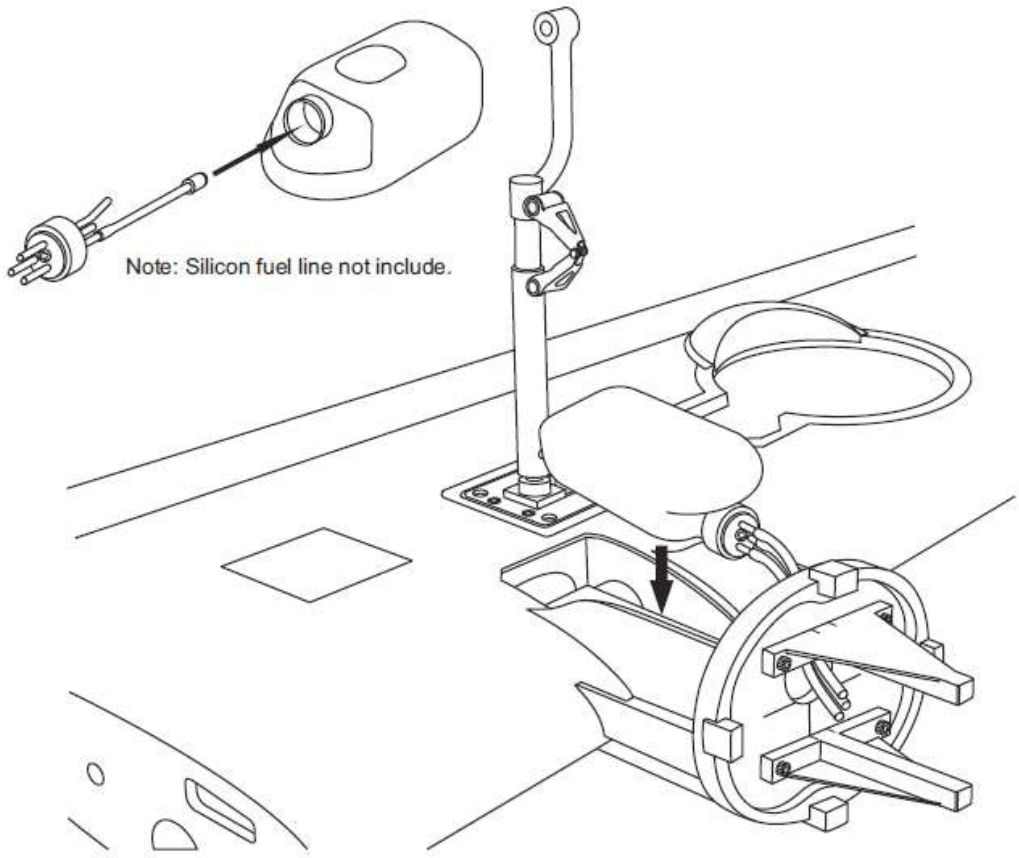
Fuel-tank stand B2-2A ⟷ B2 Engine mount



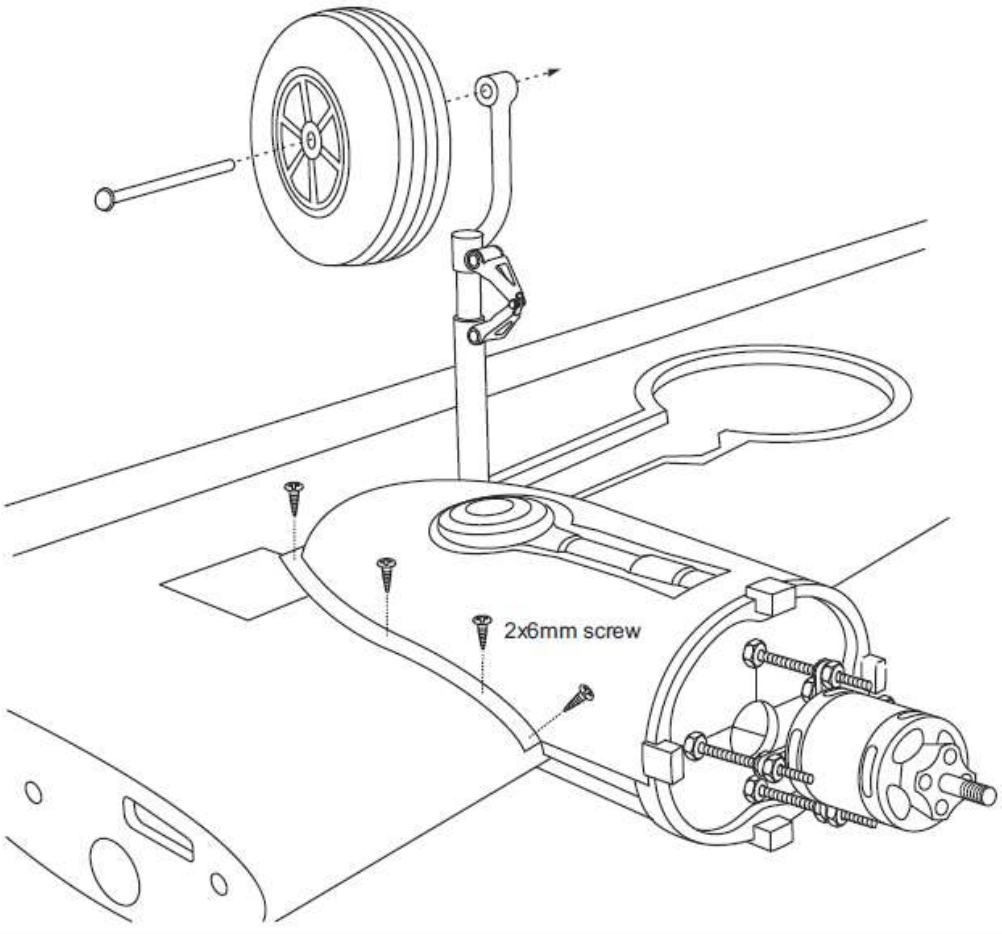
B-24 LIBERATOR 11- FUEL TANK MOUNT INSTALLATION



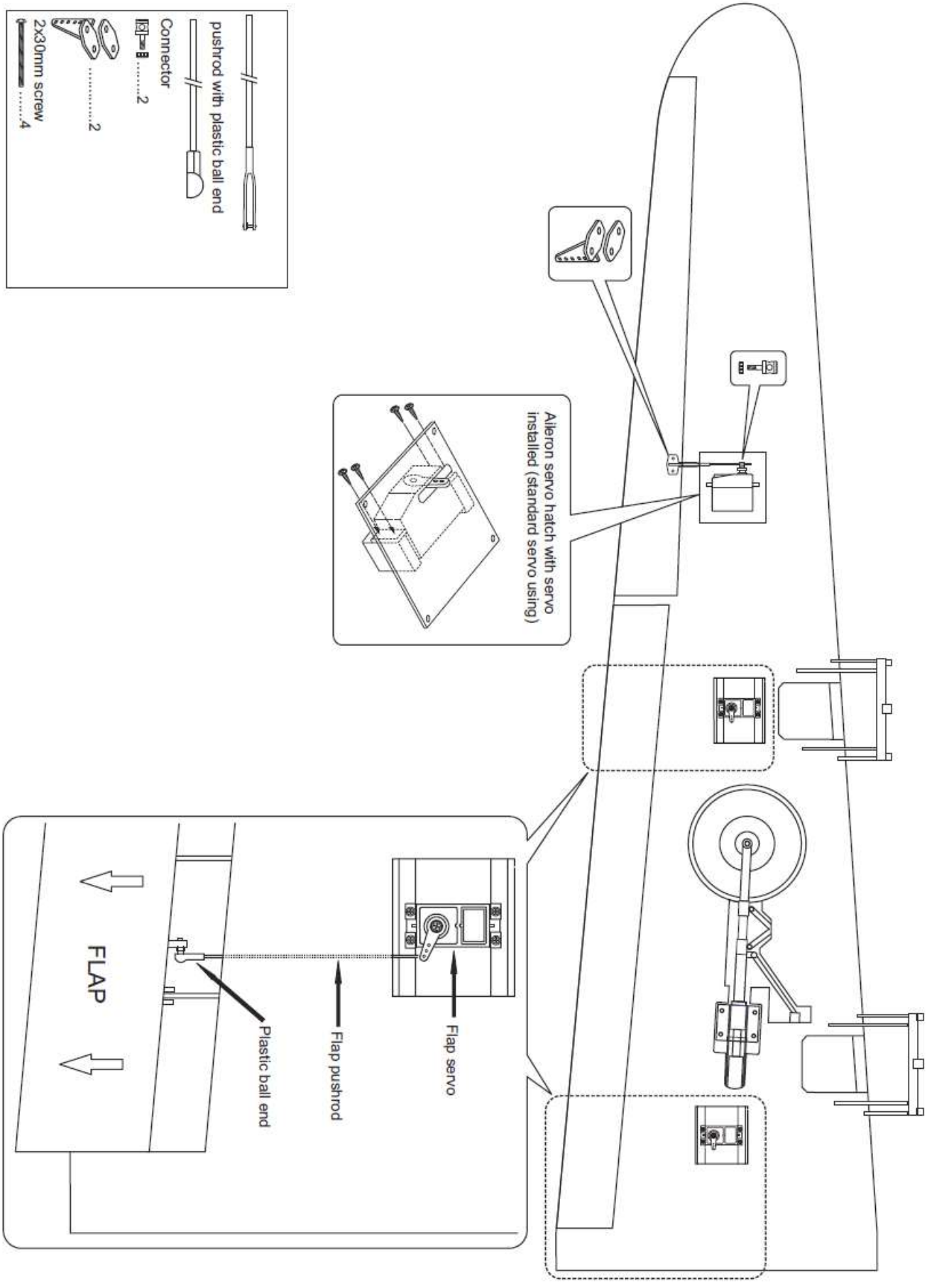
B-24 LIBERATOR 12- FUEL TANK INSTALLATION



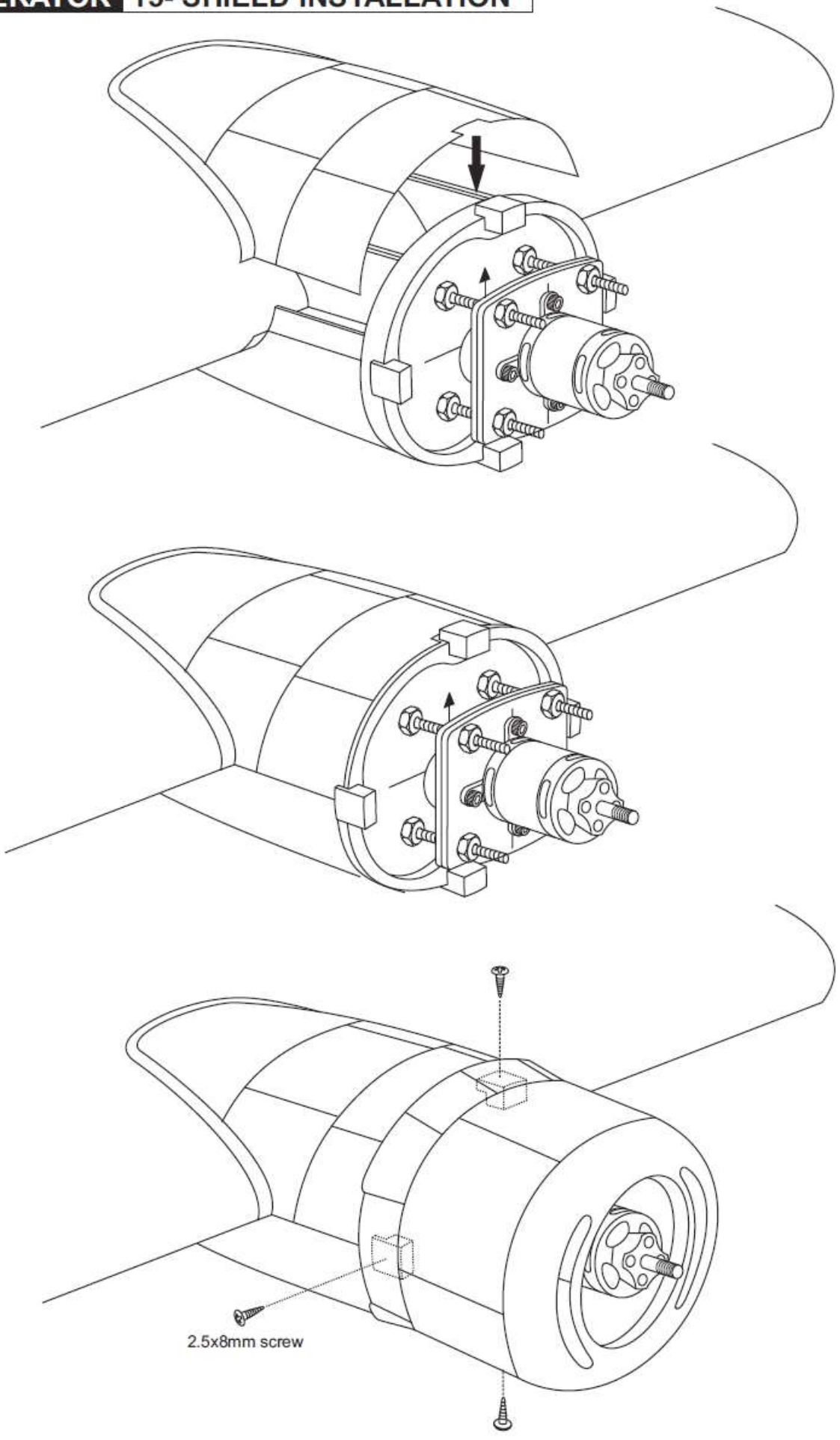
B-24 LIBERATOR 13- MAIN WHEEL



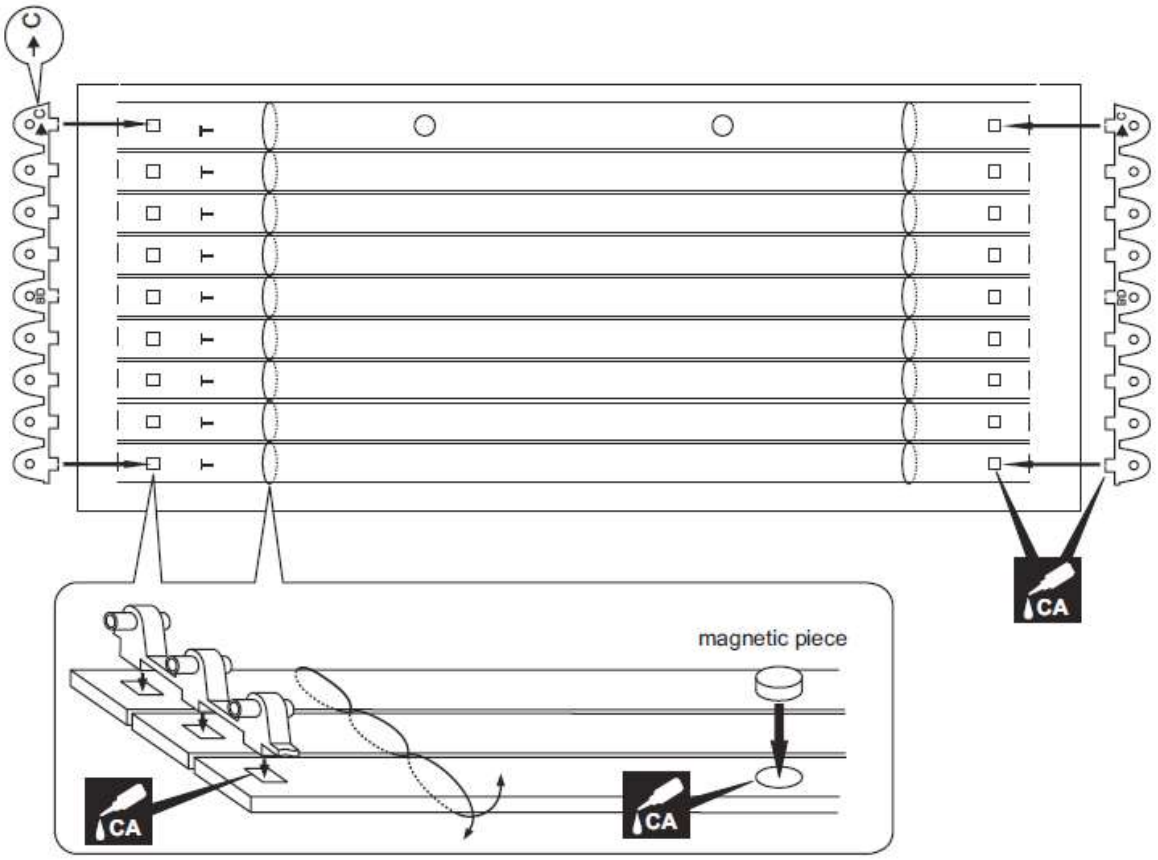
B-24 LIBERATOR 14- SERVO INSTALLATION



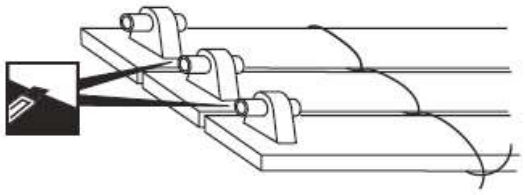
B-24 LIBERATOR 15- SHIELD INSTALLATION

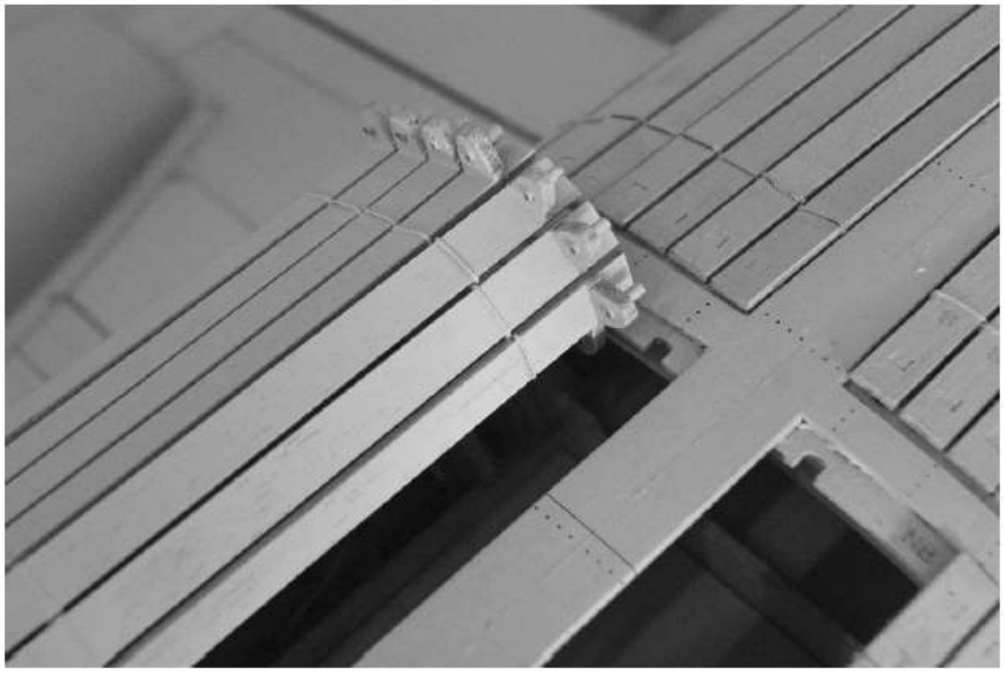


B-24 LIBERATOR 16- BOMB DOOR ASSEMBLY

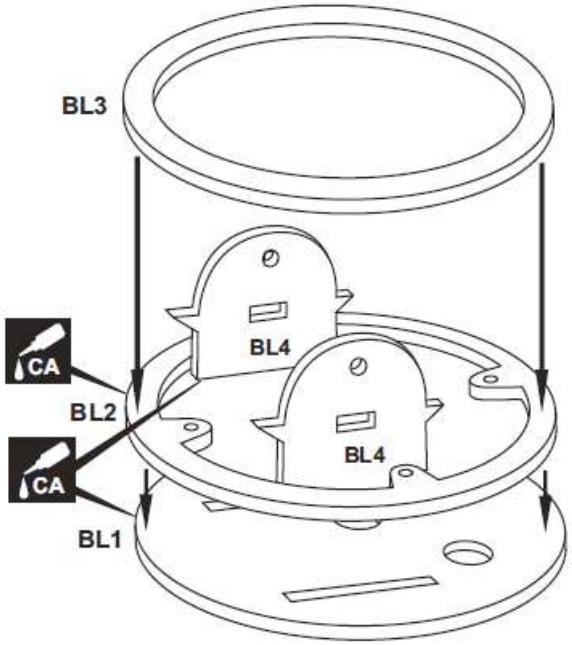


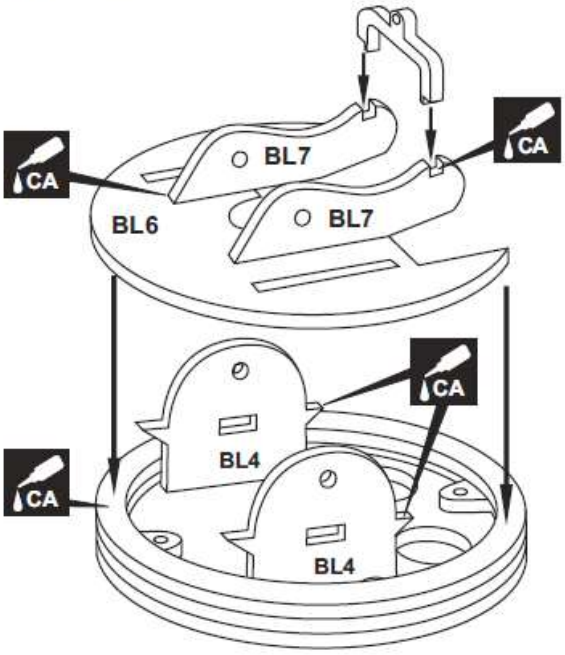
Note: "T" sheet for the front bomb door
"S" sheet for the rear bomb door

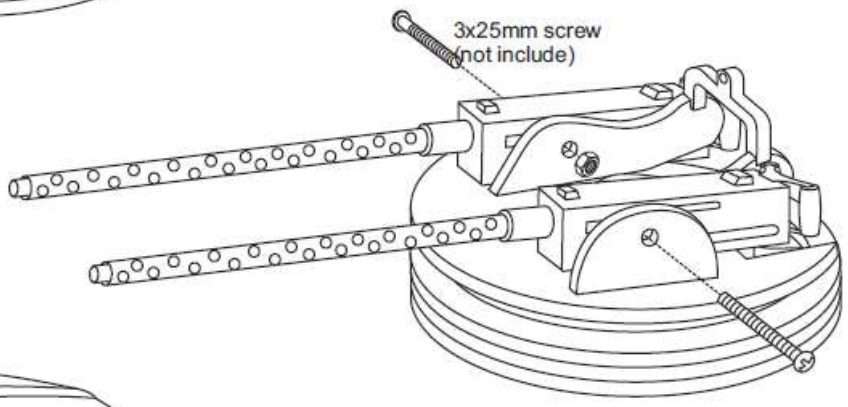


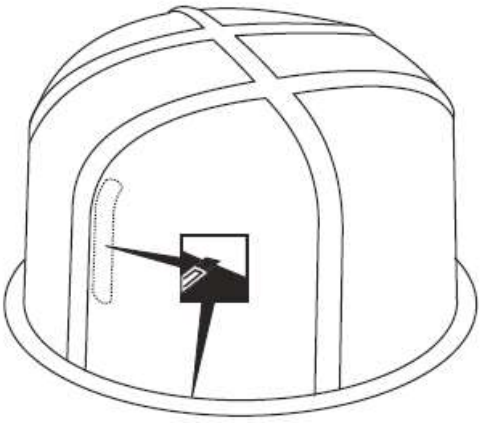


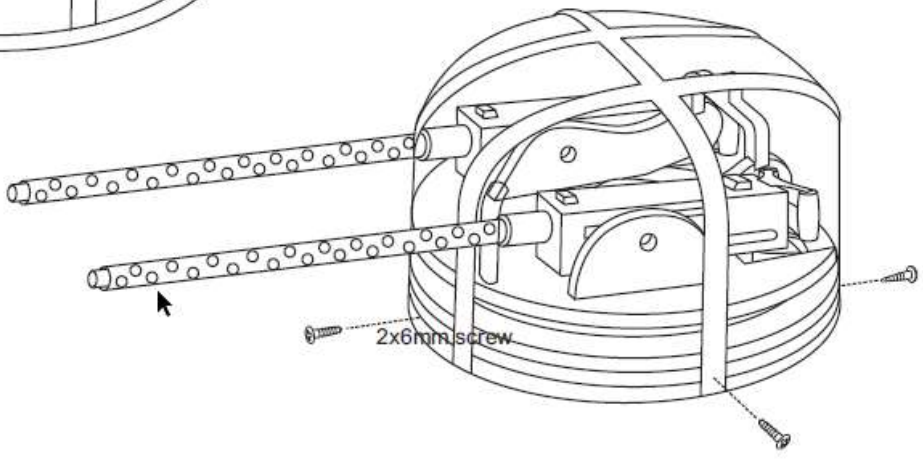
B-24 LIBERATOR 17- TOP-TURRET ASSEMBLY



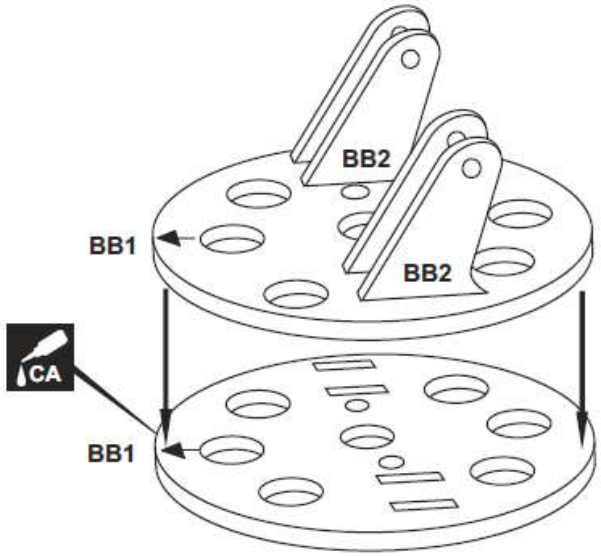


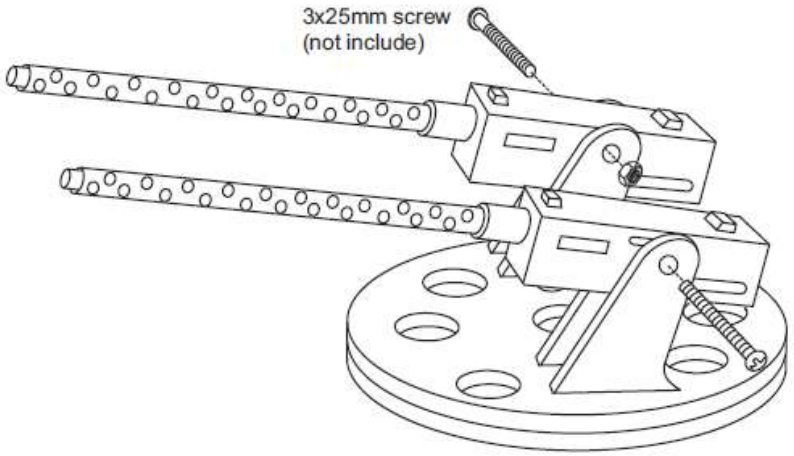


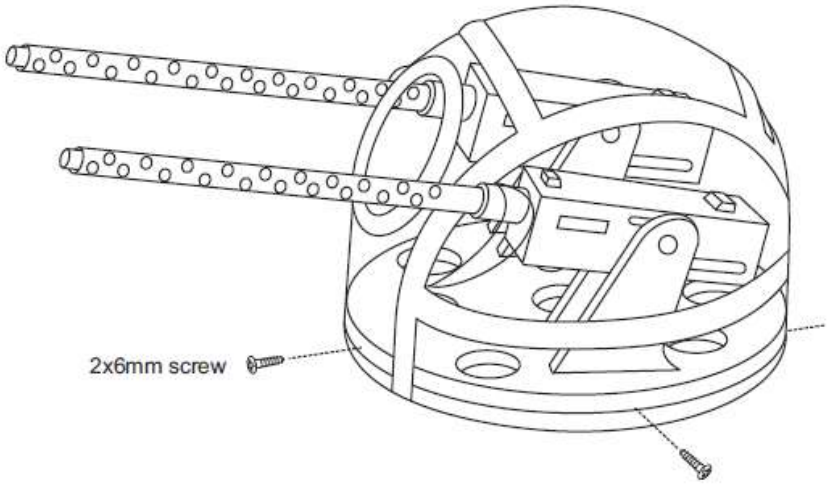




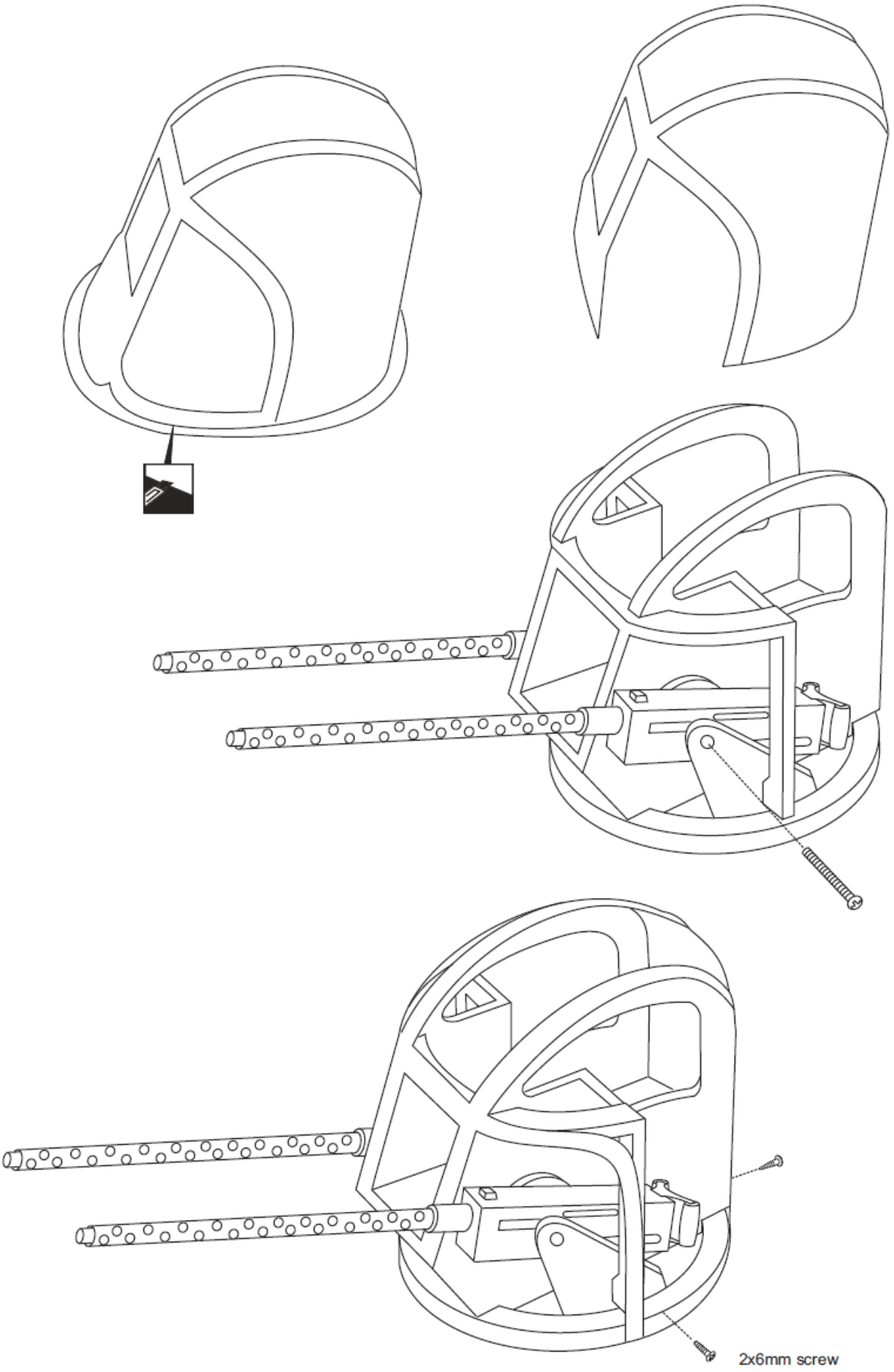
B-24 LIBERATOR 18- LOWER BALL-TURRET ASSEMBLY



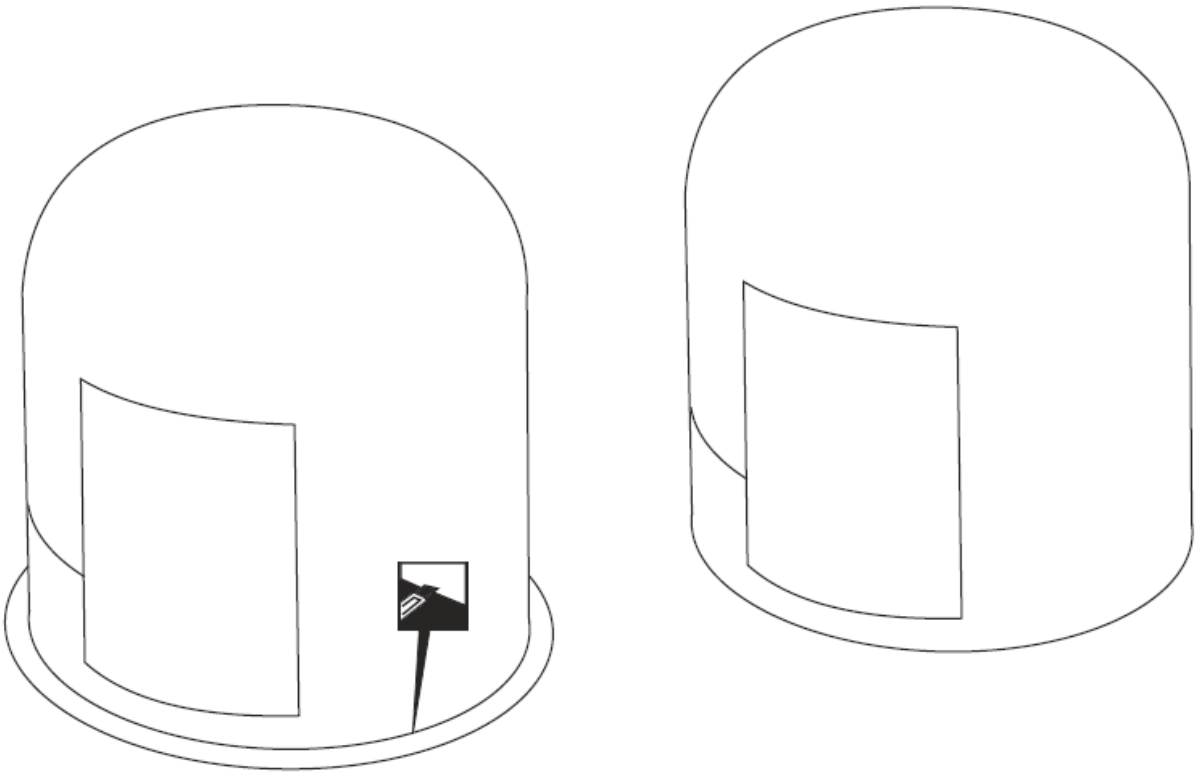


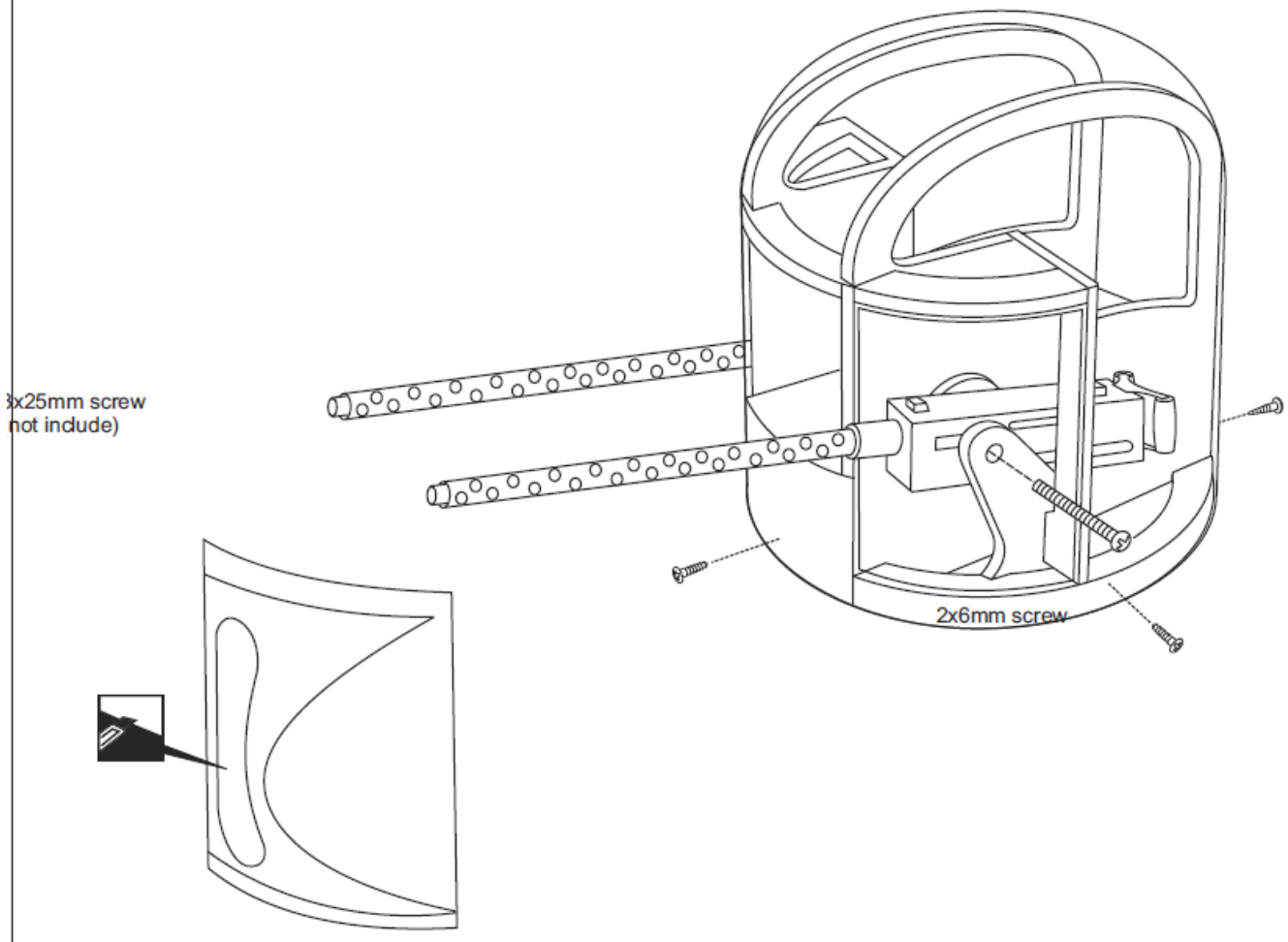


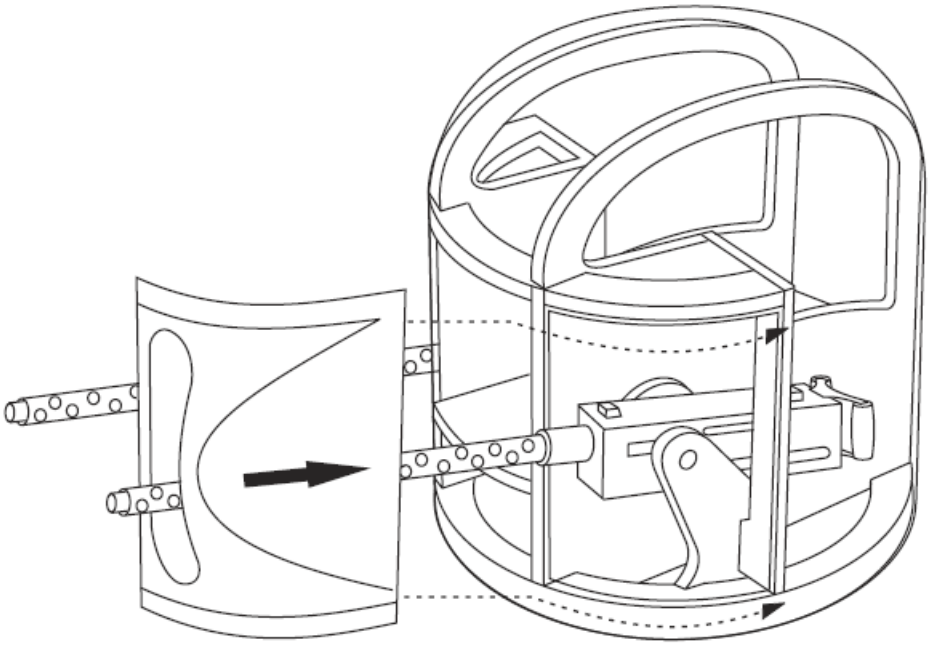
B-24 LIBERATOR 19- TAIL-TURRET ASSEMBLY

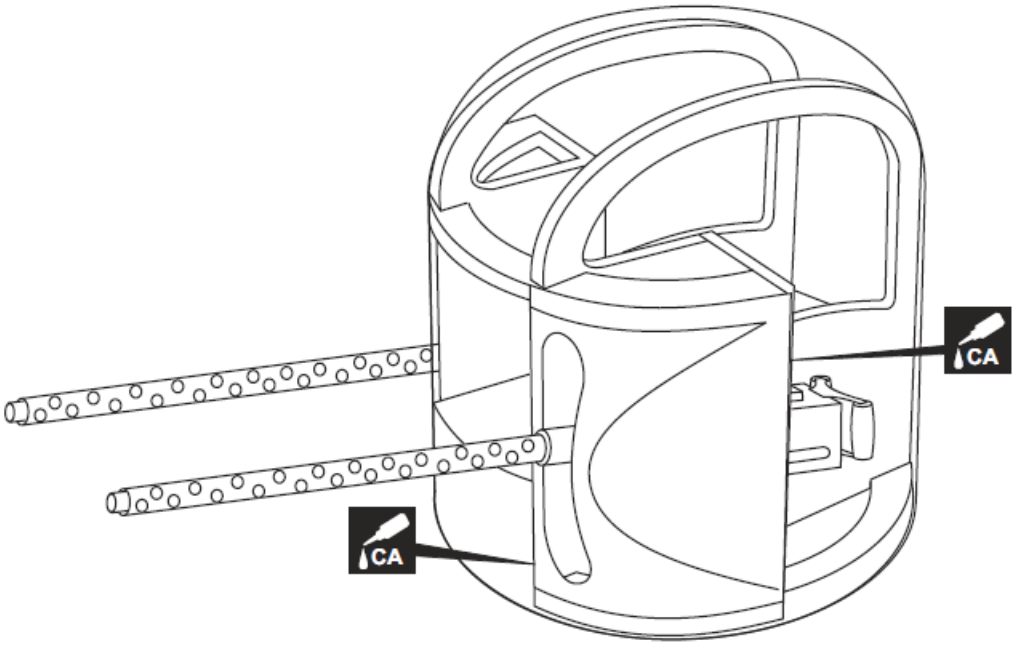


B-24 LIBERATOR 20- NOSE-TURRET ASSEMBLY

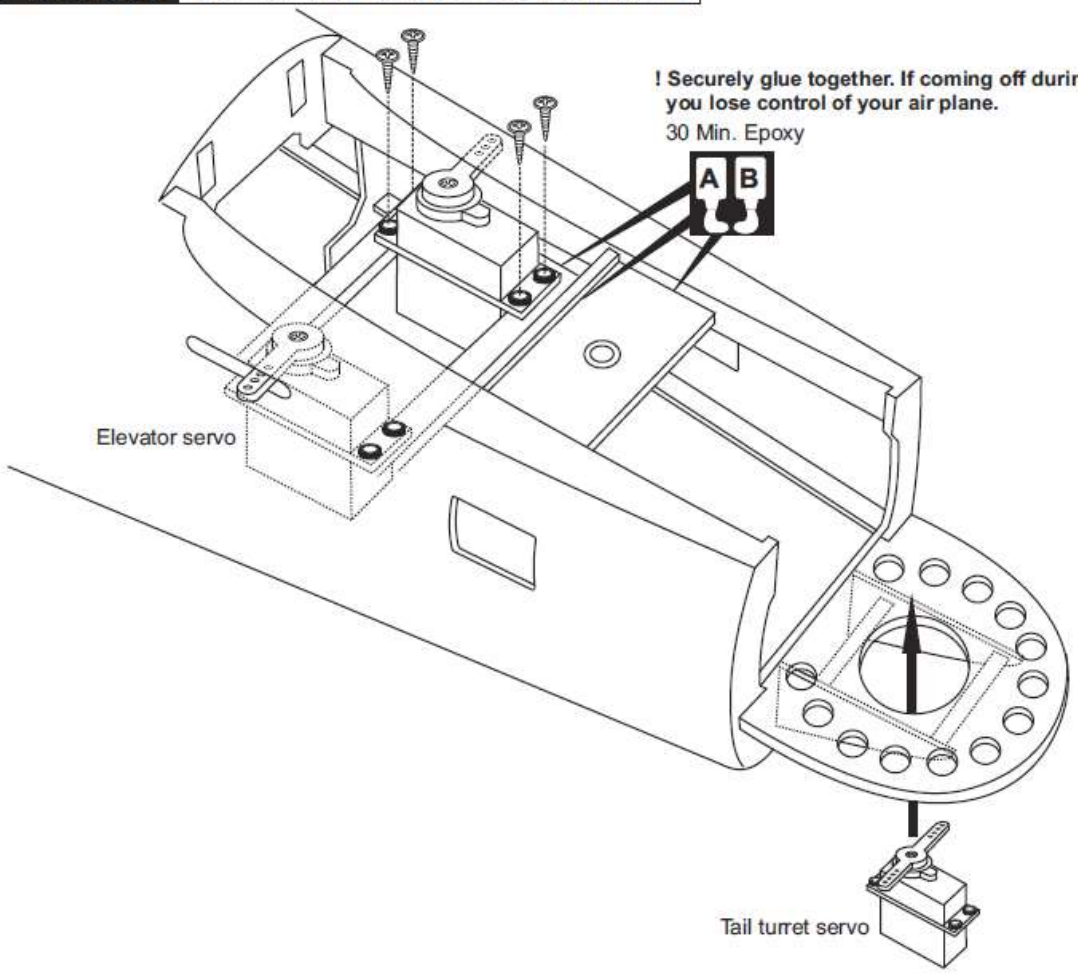




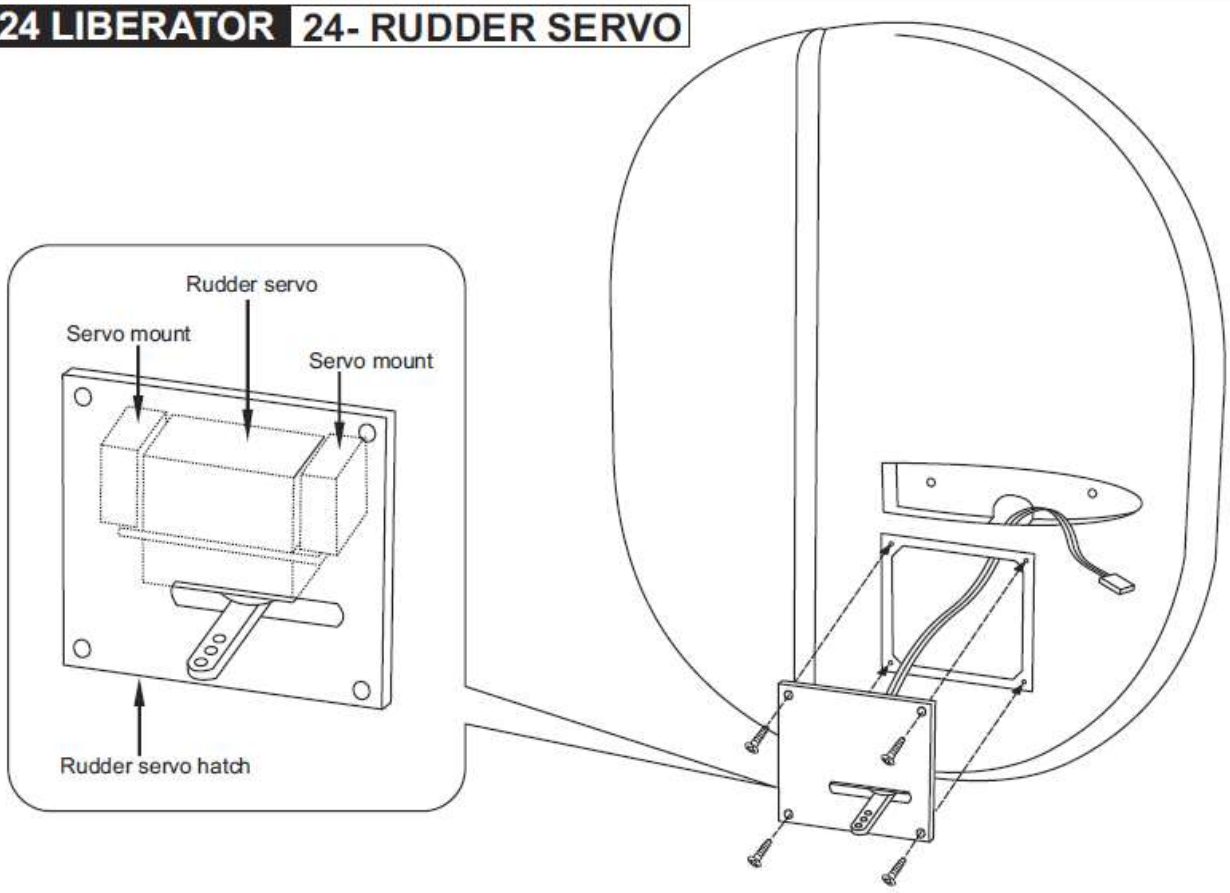



CA
CA

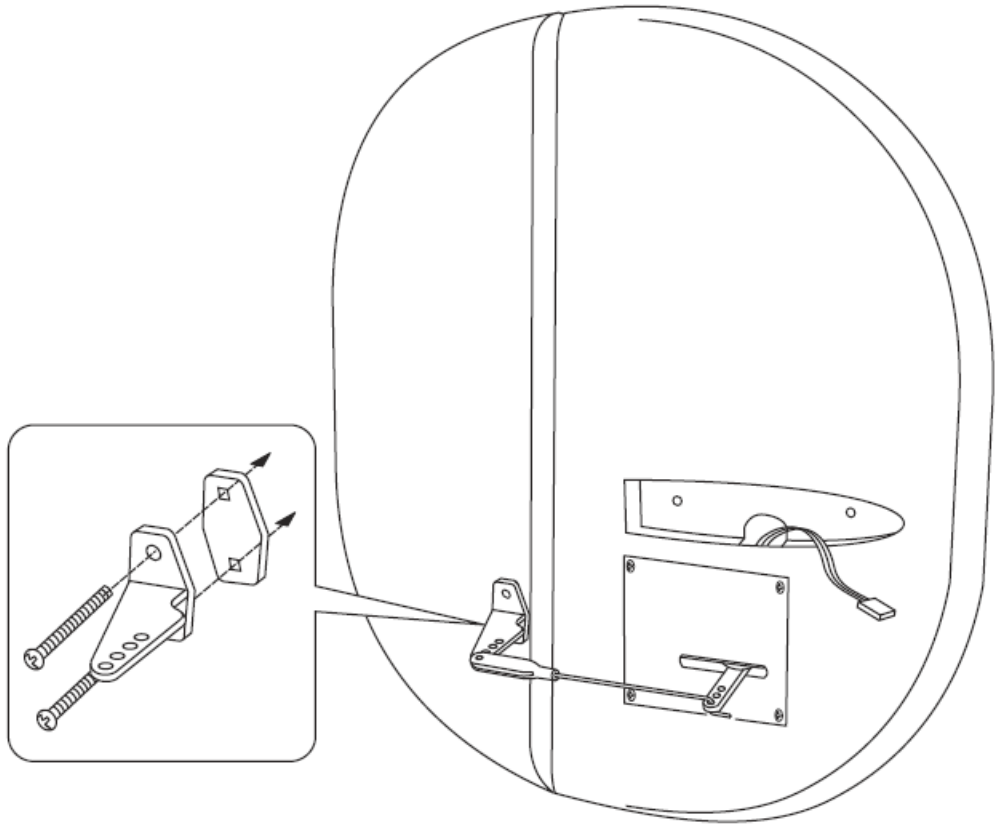
B-24 LIBERATOR 23- SERVO INSTALLATION



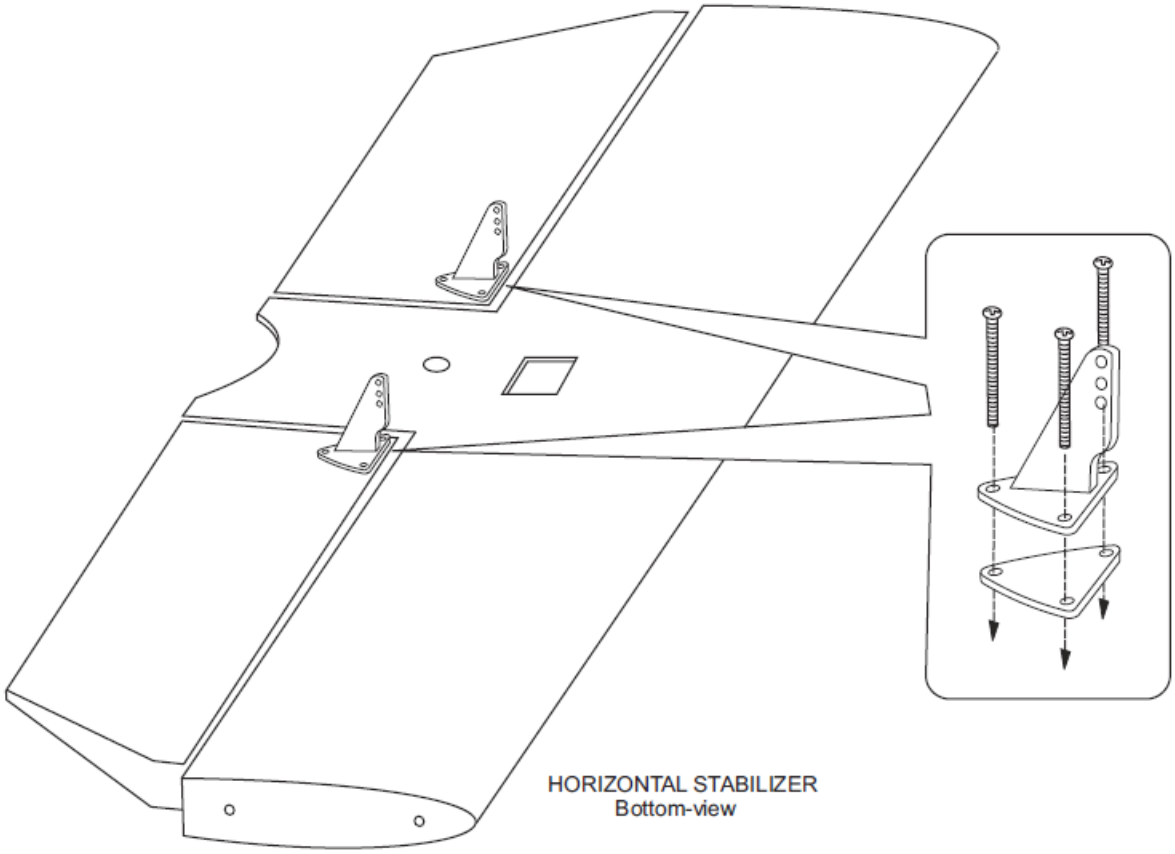
B-24 LIBERATOR 24- RUDDER SERVO



B-24 LIBERATOR 25- RUDDER CONTROL HORN & LINKAGE

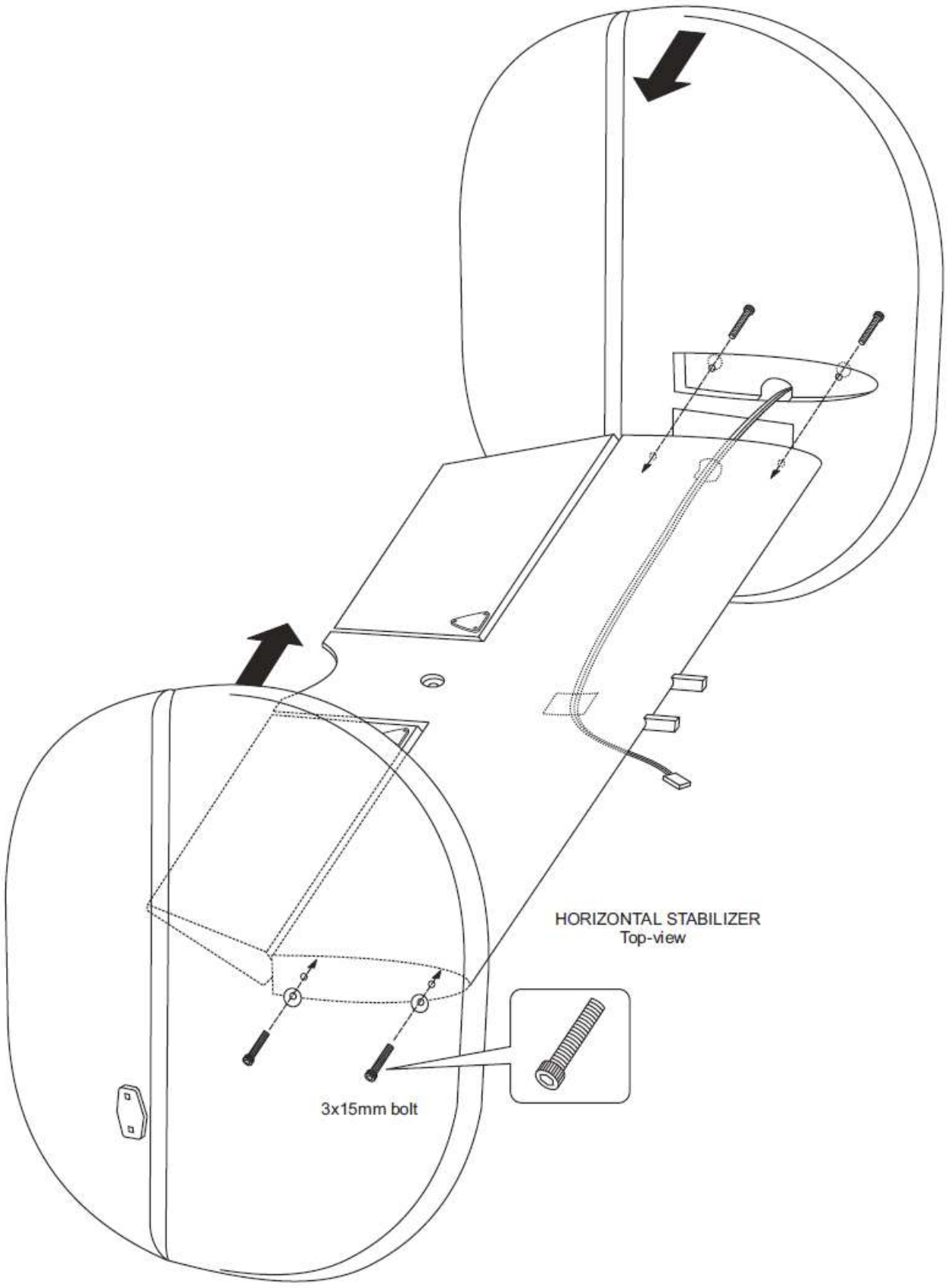


B-24 LIBERATOR 26- ELEVATOR CONTROL HORN

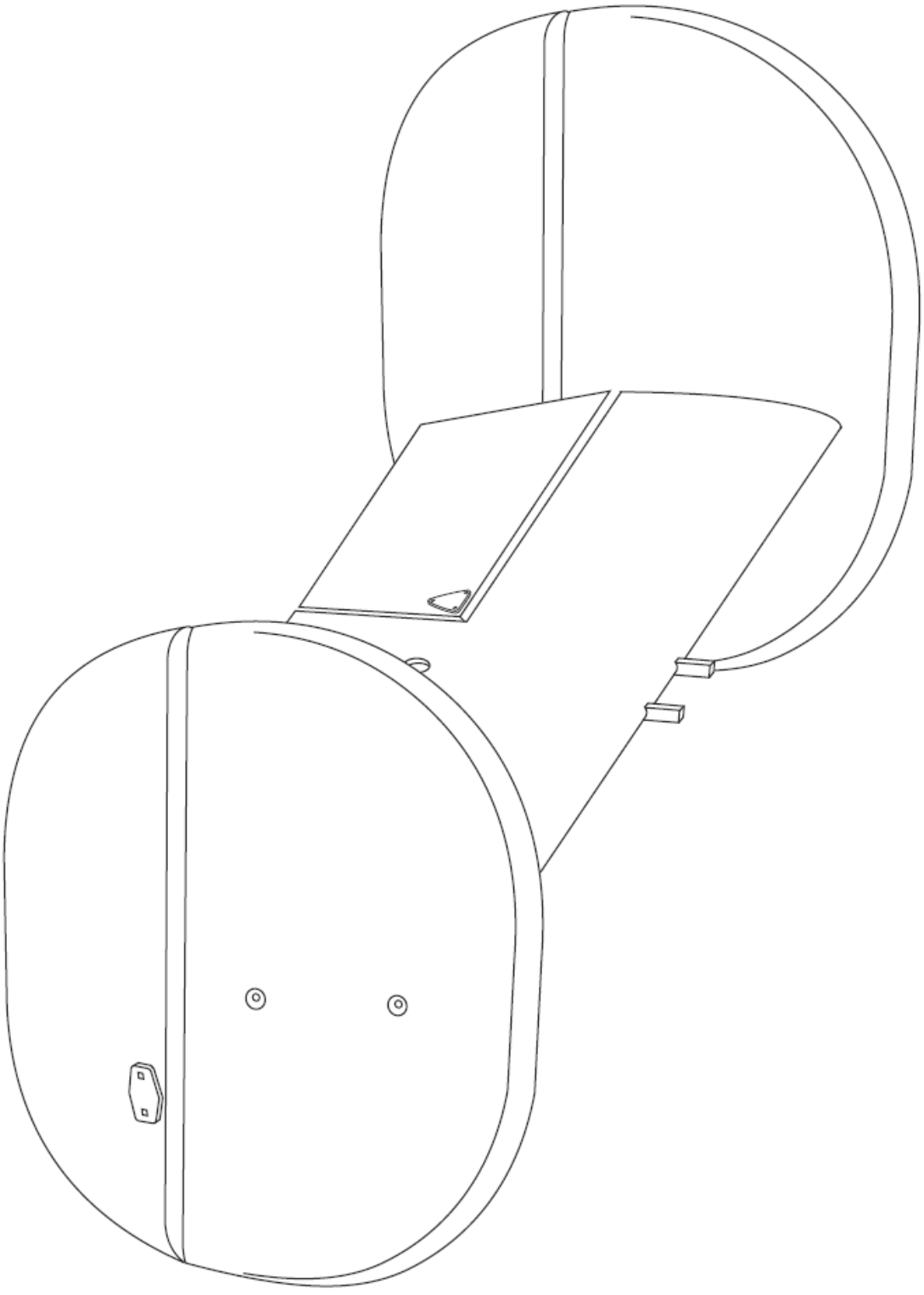


HORIZONTAL STABILIZER
Bottom-view

B-24 LIBERATOR 27- RUDDER INSTALLATION



B-24 LIBERATOR 28- VERTICAL & HORIZONTAL STABILIZER



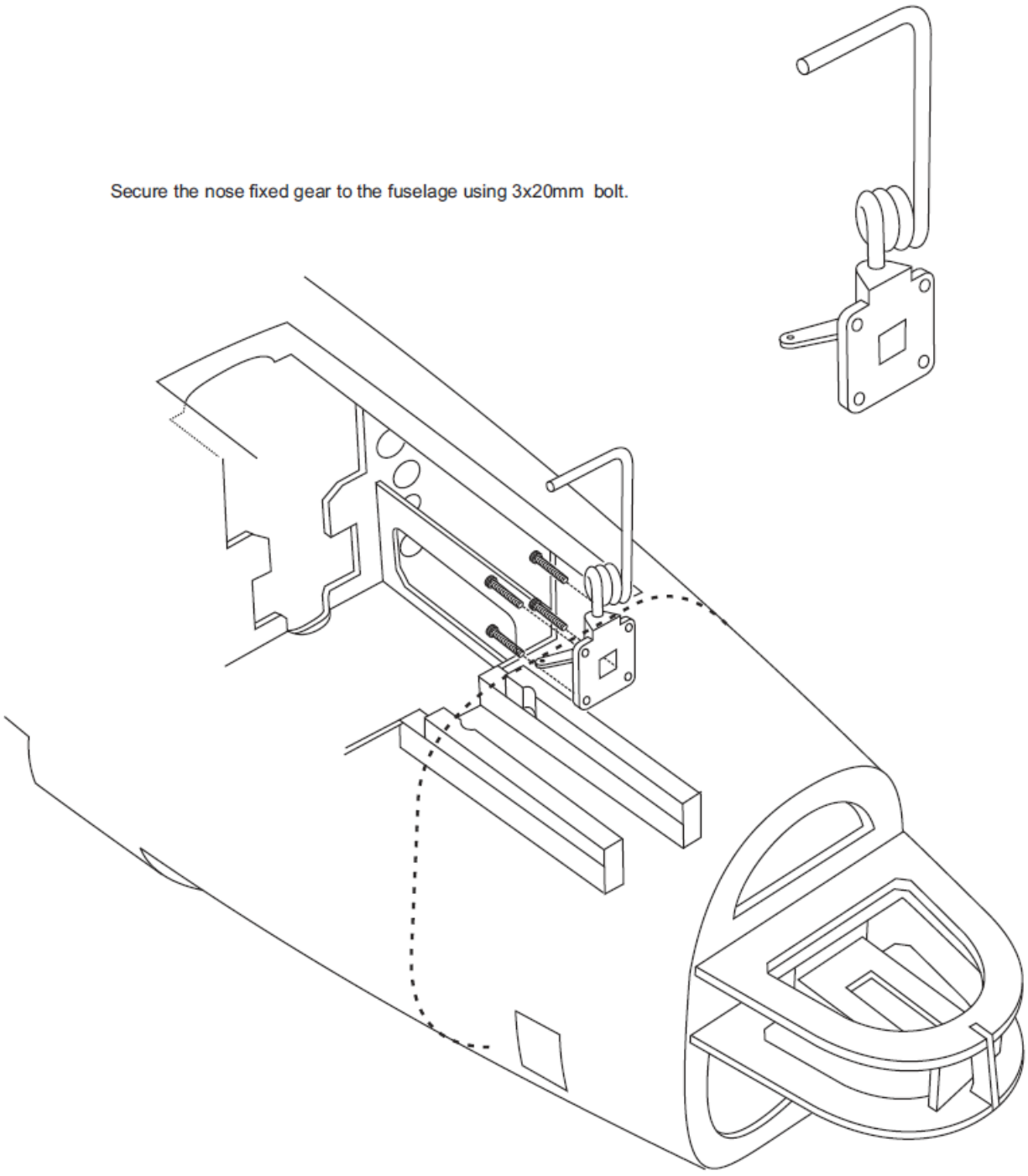
6x50mm nylon bolt

.....1

Secure the Stabilizer to the fuselage using 6x50mm nylon bolt.

B-24 LIBERATOR 29- NOSE FIXED GEAR INSTALLATION

Secure the nose fixed gear to the fuselage using 3x20mm bolt.

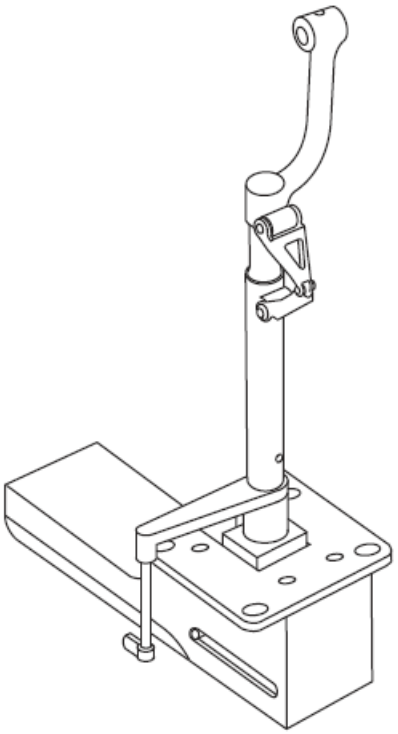


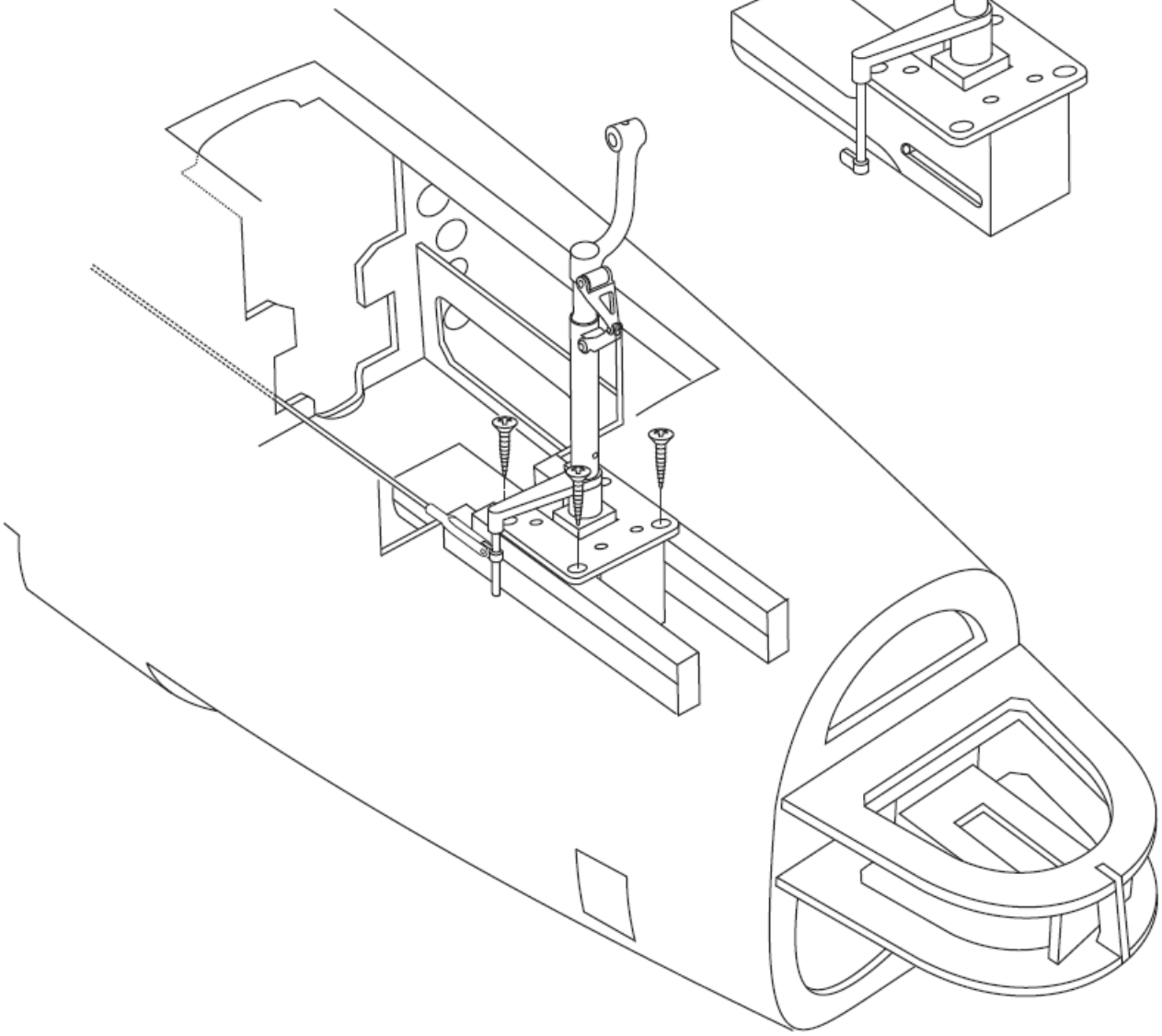
3x20mm bolt

...4

B-24 LIBERATOR 30- NOSE ERETRACT & STRUT INSTALLATION

Secure the nose E-retract gear to the fuselage using 3x20mm screw.

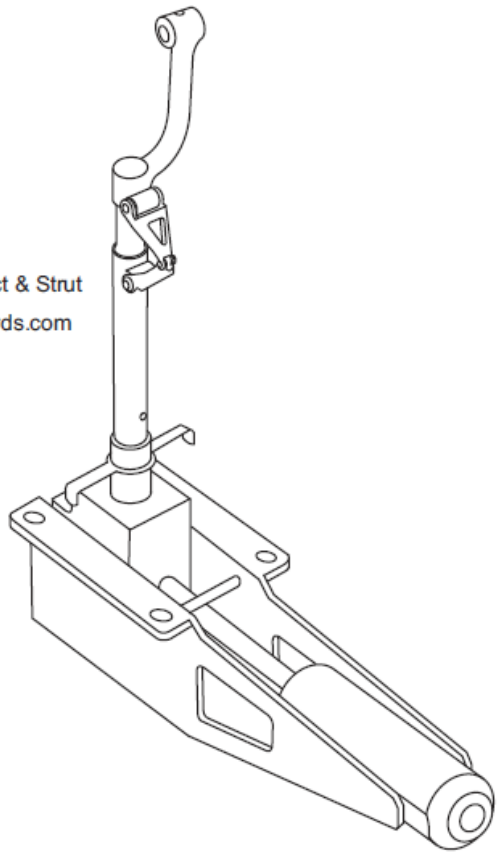




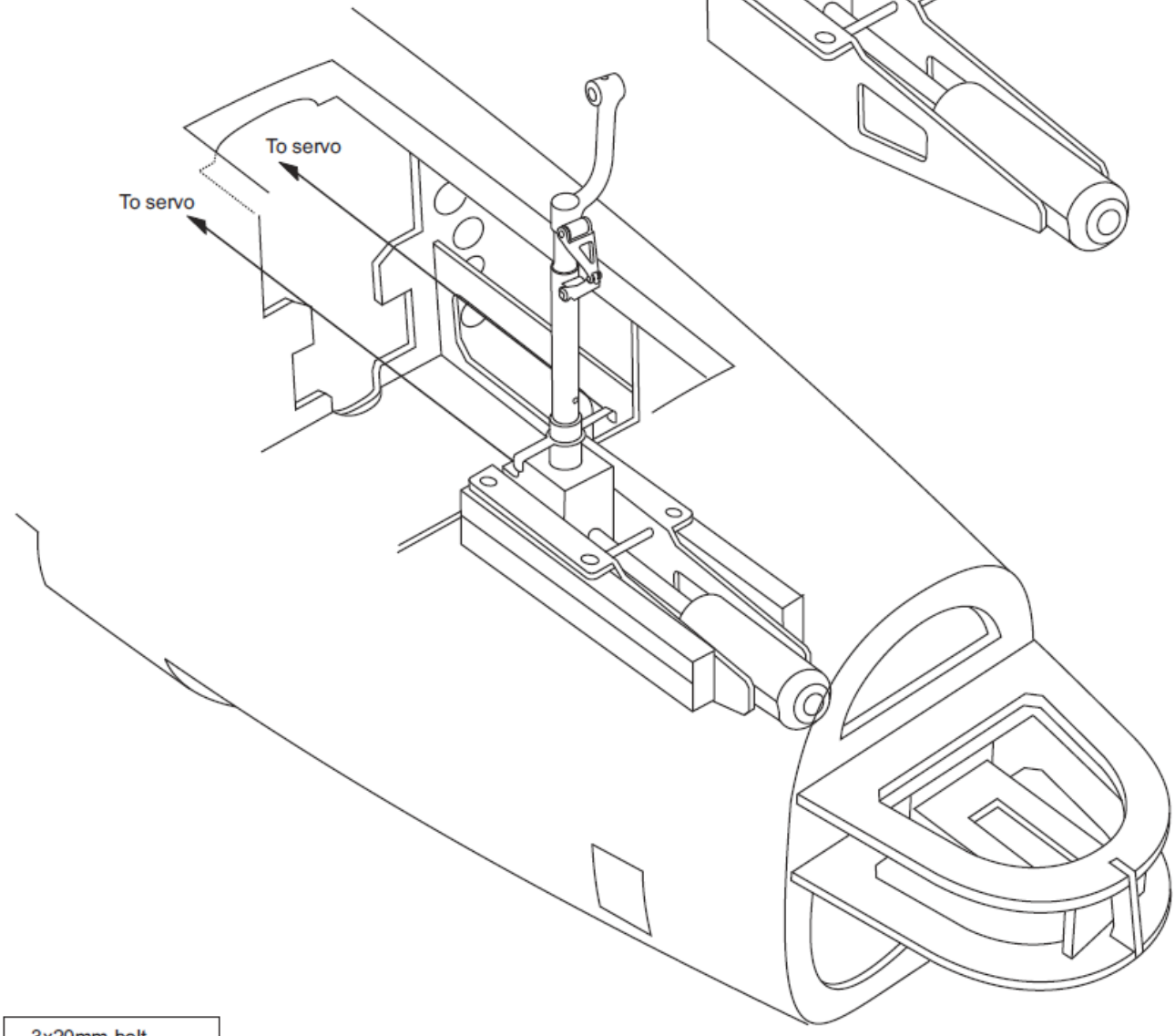
3x20mm bolt ...4

B-24 LIBERATOR 31- NOSE E-RETRACT & STRUT INSTALLATION

Robart E-Retract & Strut
www.VQwardbirds.com



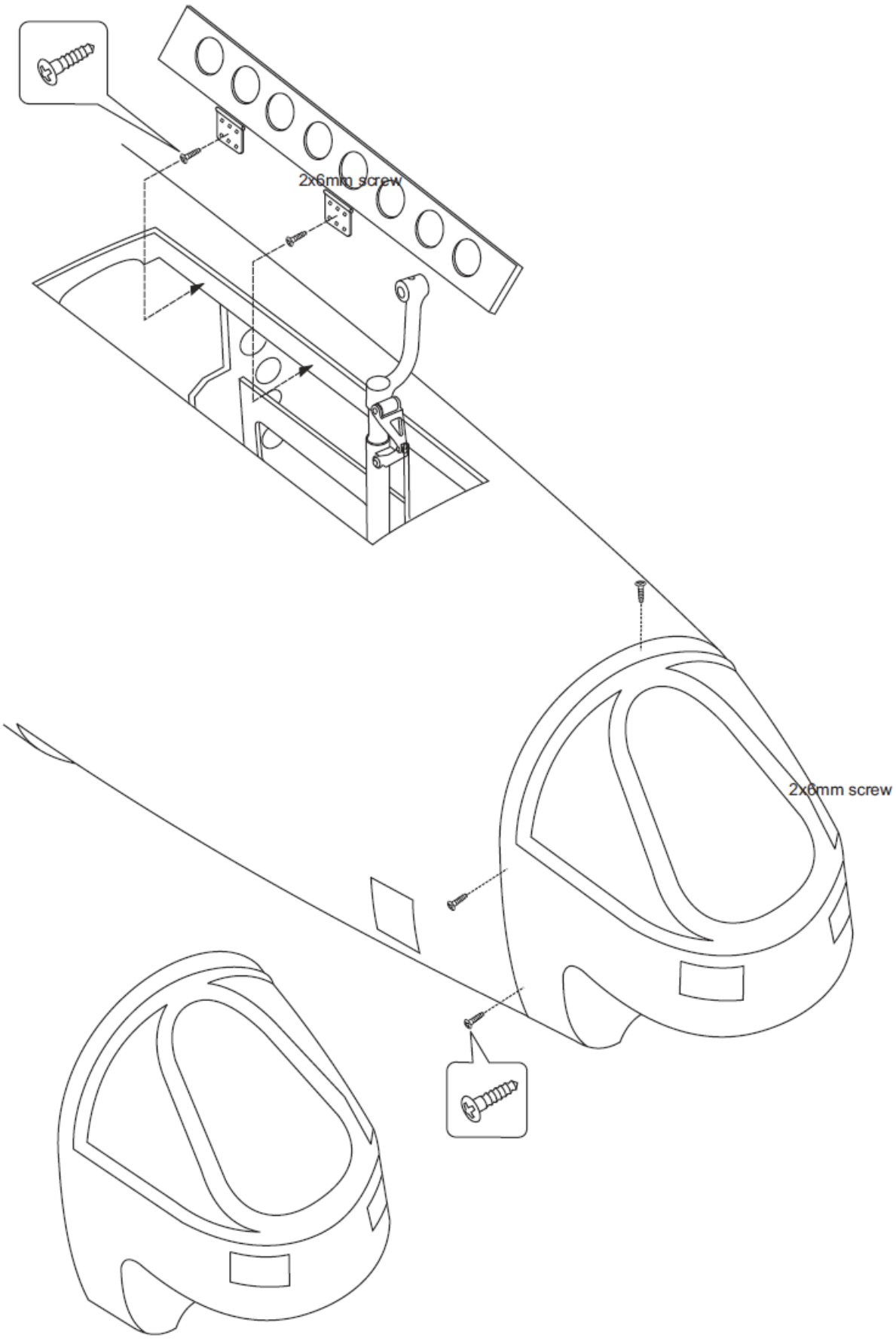
Secure the nose E-retract gear to the fuselage using 3x20mm screw.



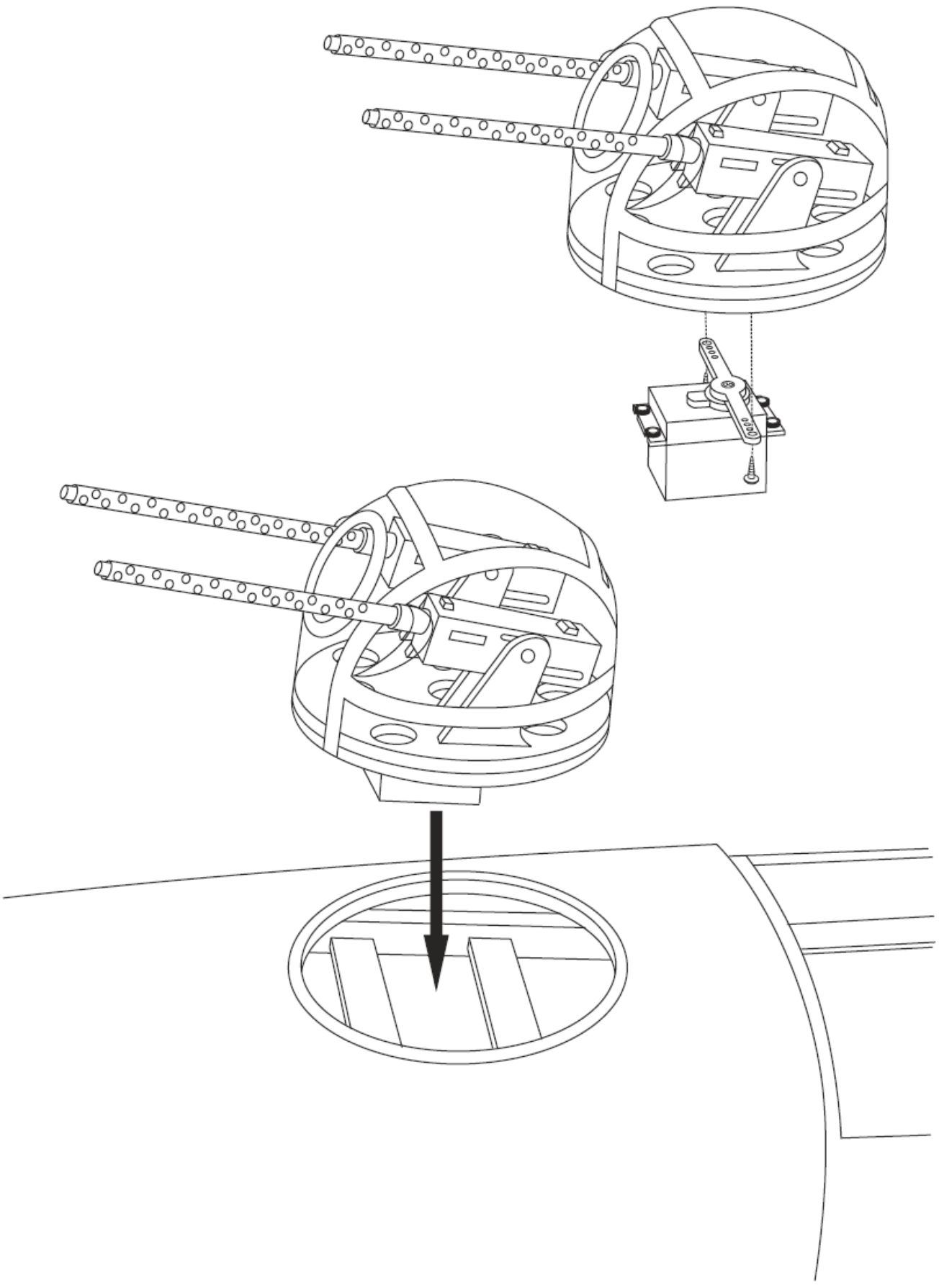
3x20mm bolt

...4

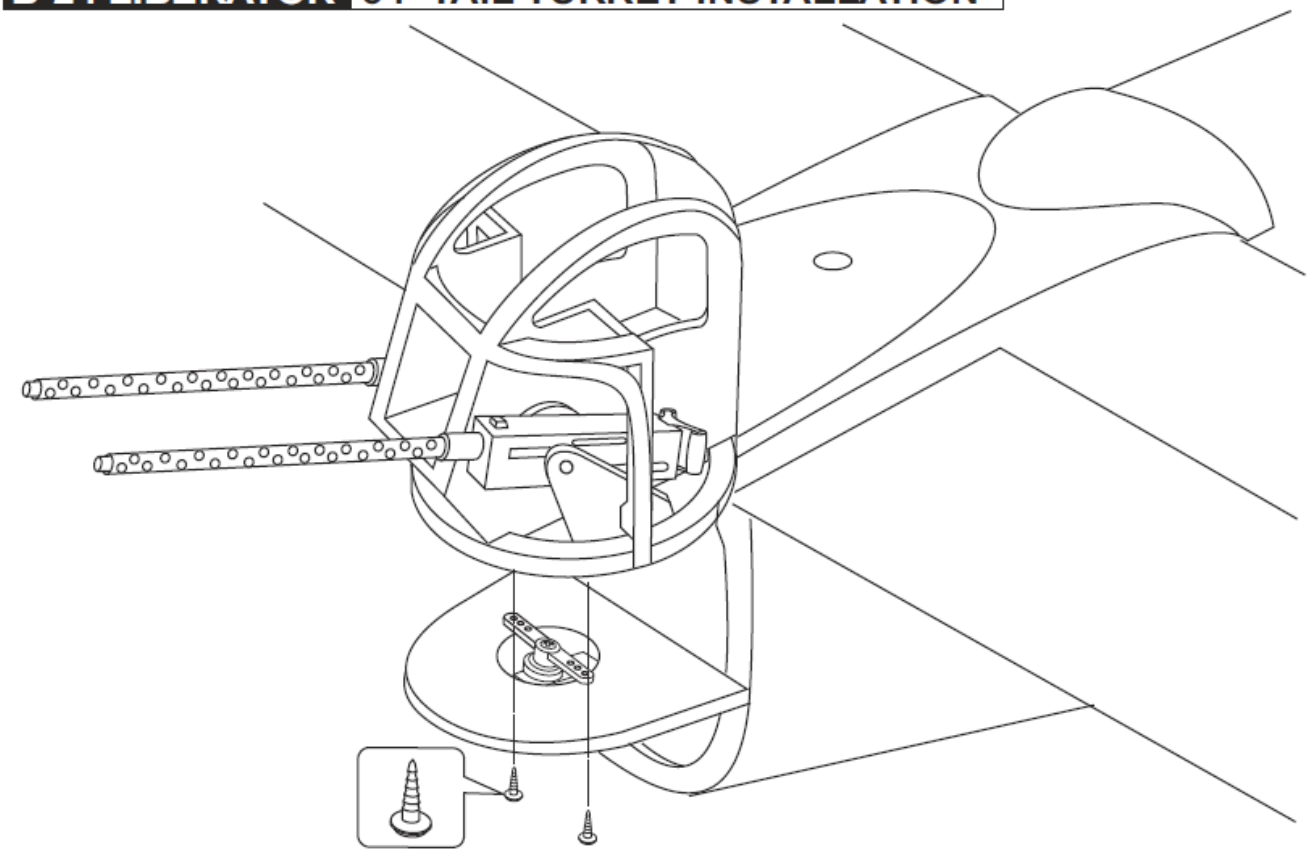
B-24 LIBERATOR 32- NOSE GEAR DOOR INSTALLATION



B-24 LIBERATOR 33- TOP TURRET INSTALLATION

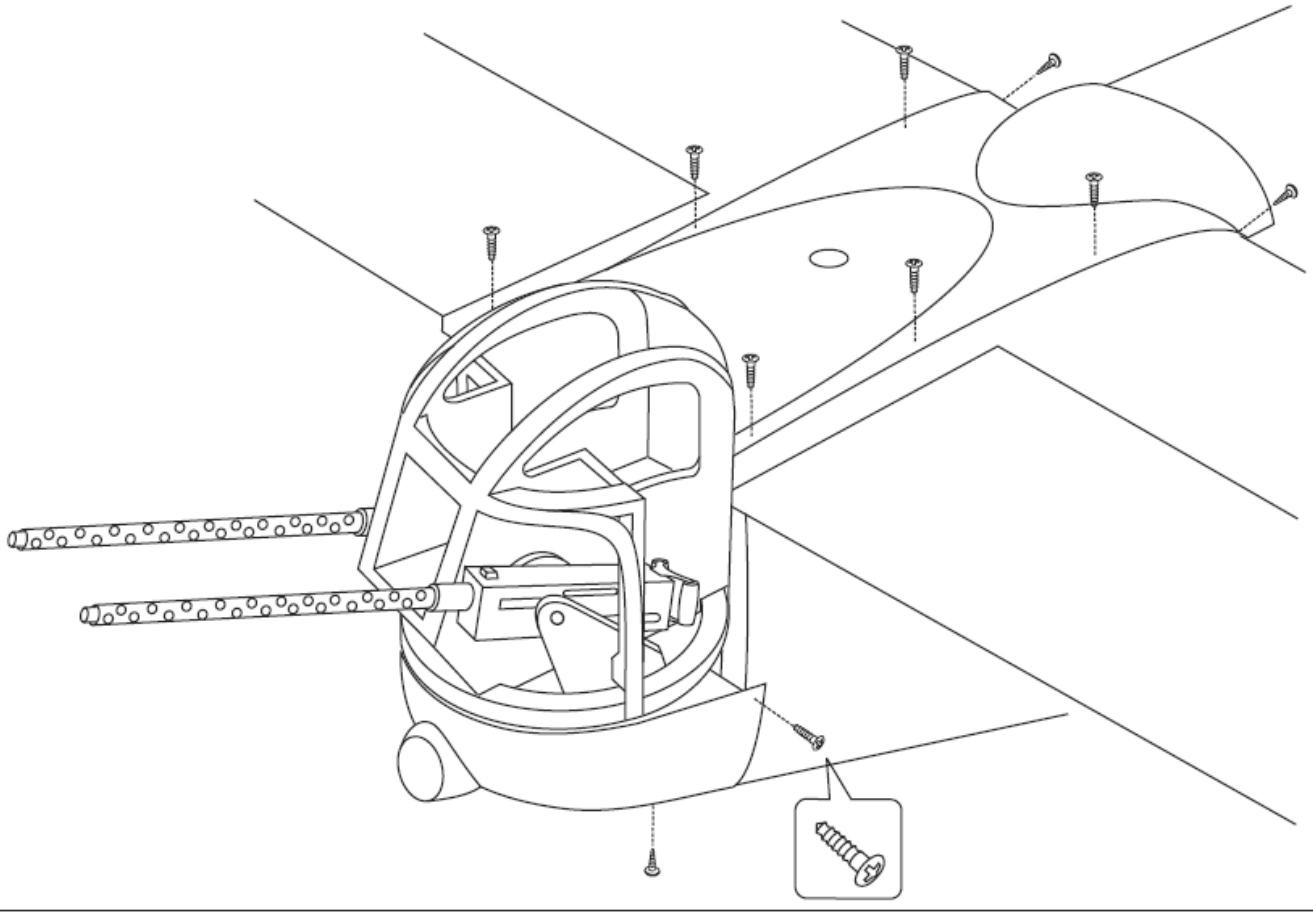


B-24 LIBERATOR 34- TAIL TURRET INSTALLATION

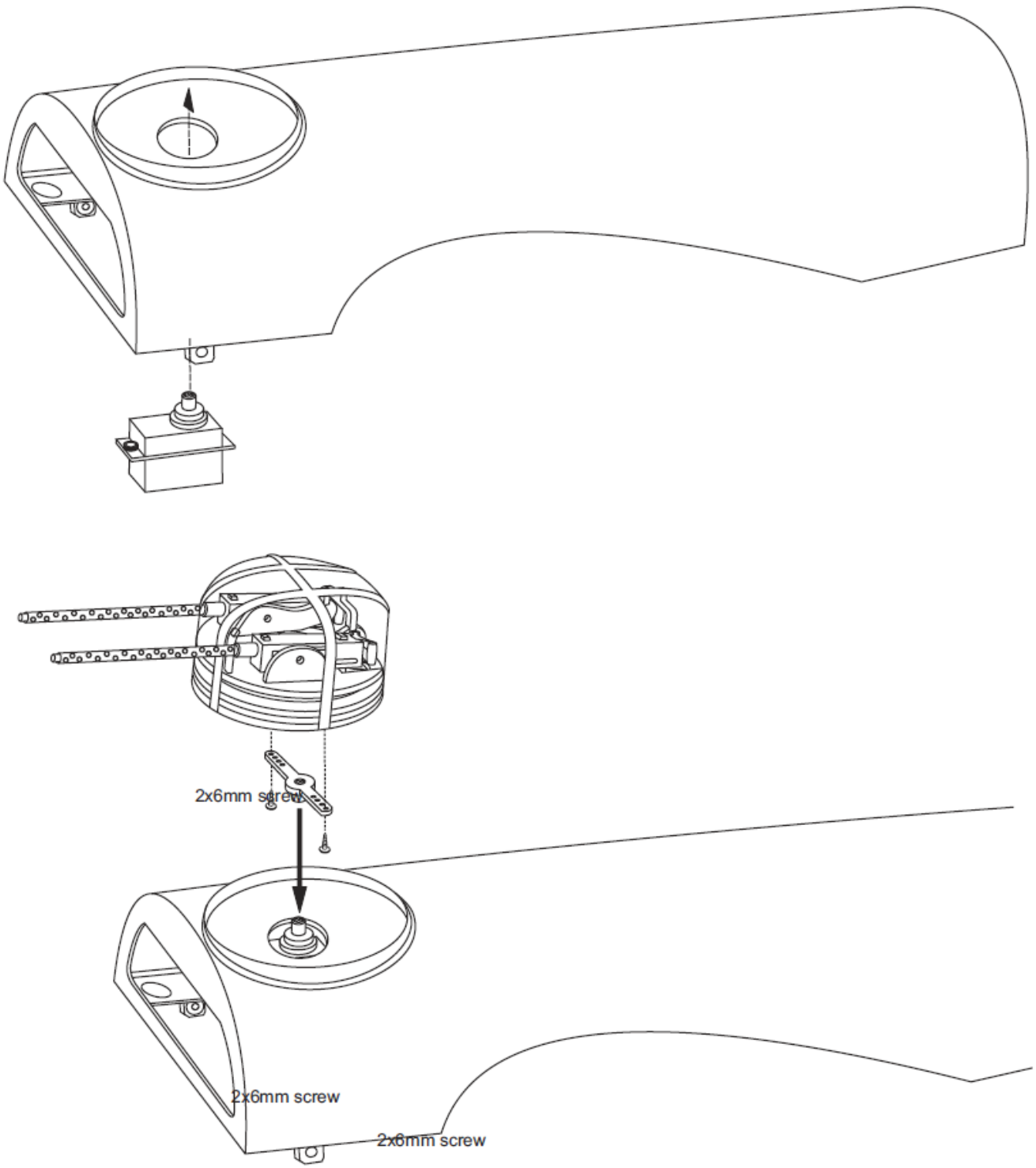


B-24 LIBERATOR 35- HORIZONTAL STABILIZER SHIELD

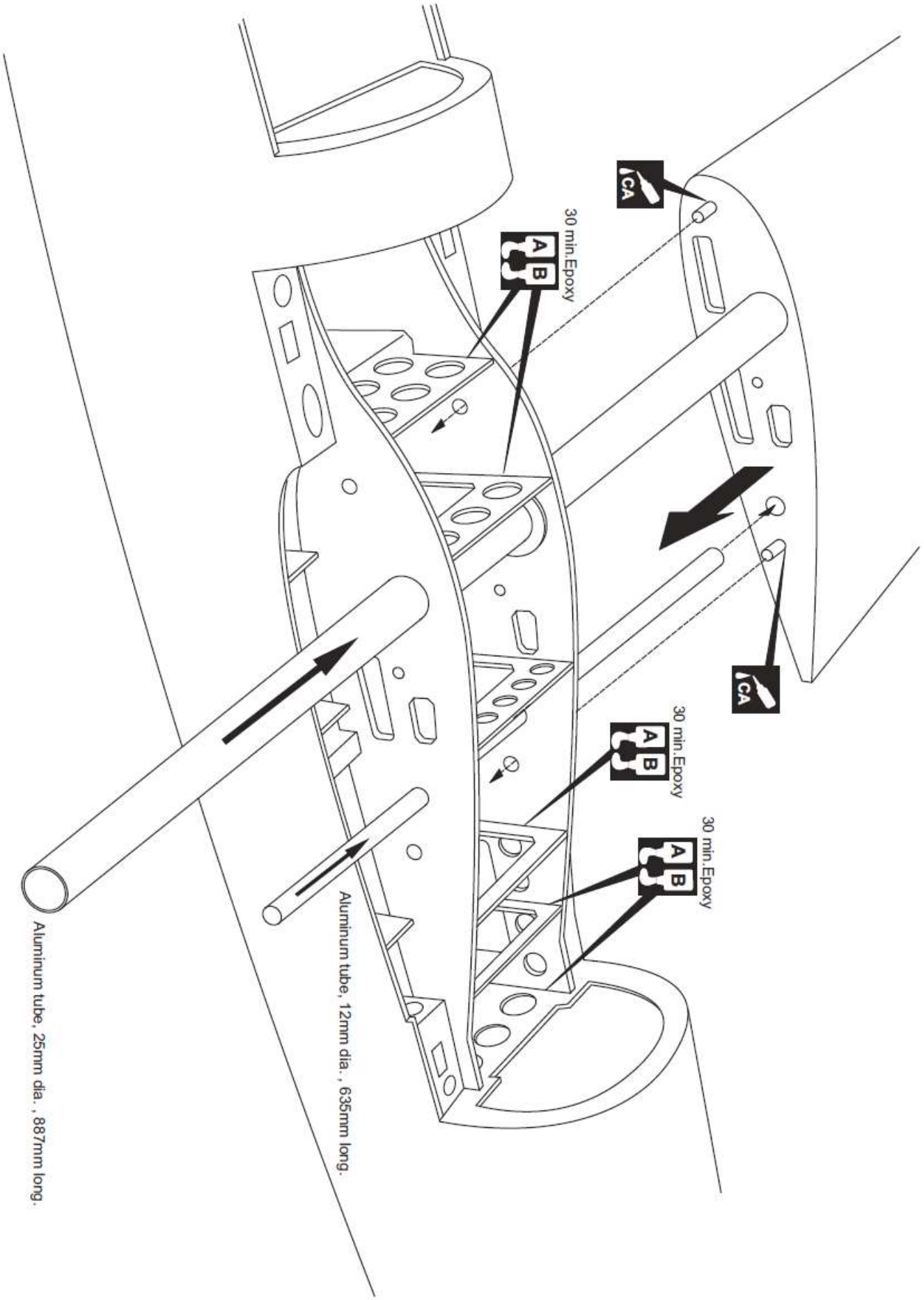
2x6mm screw

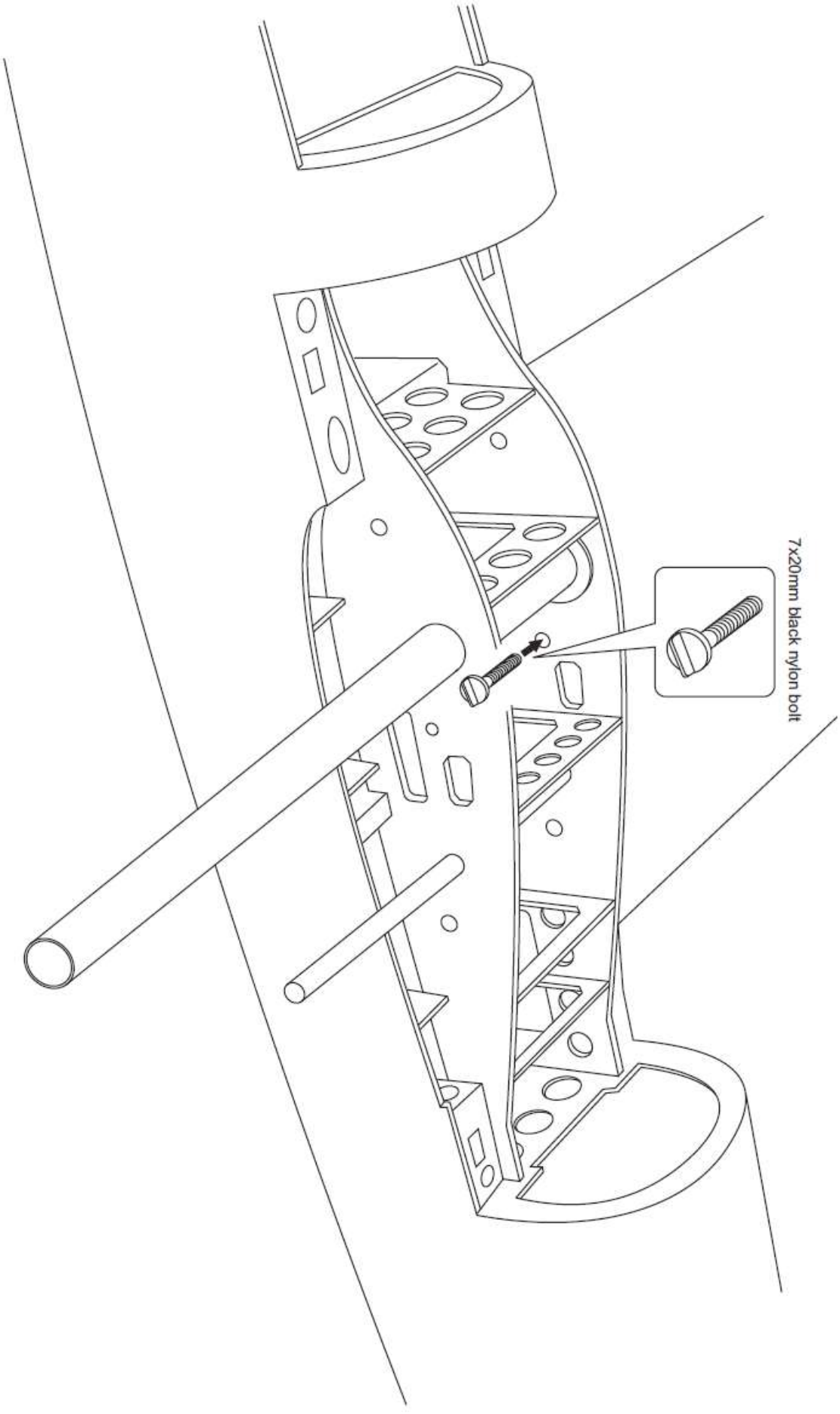


B-24 LIBERATOR 36- TOP TURRET INSTALLATION

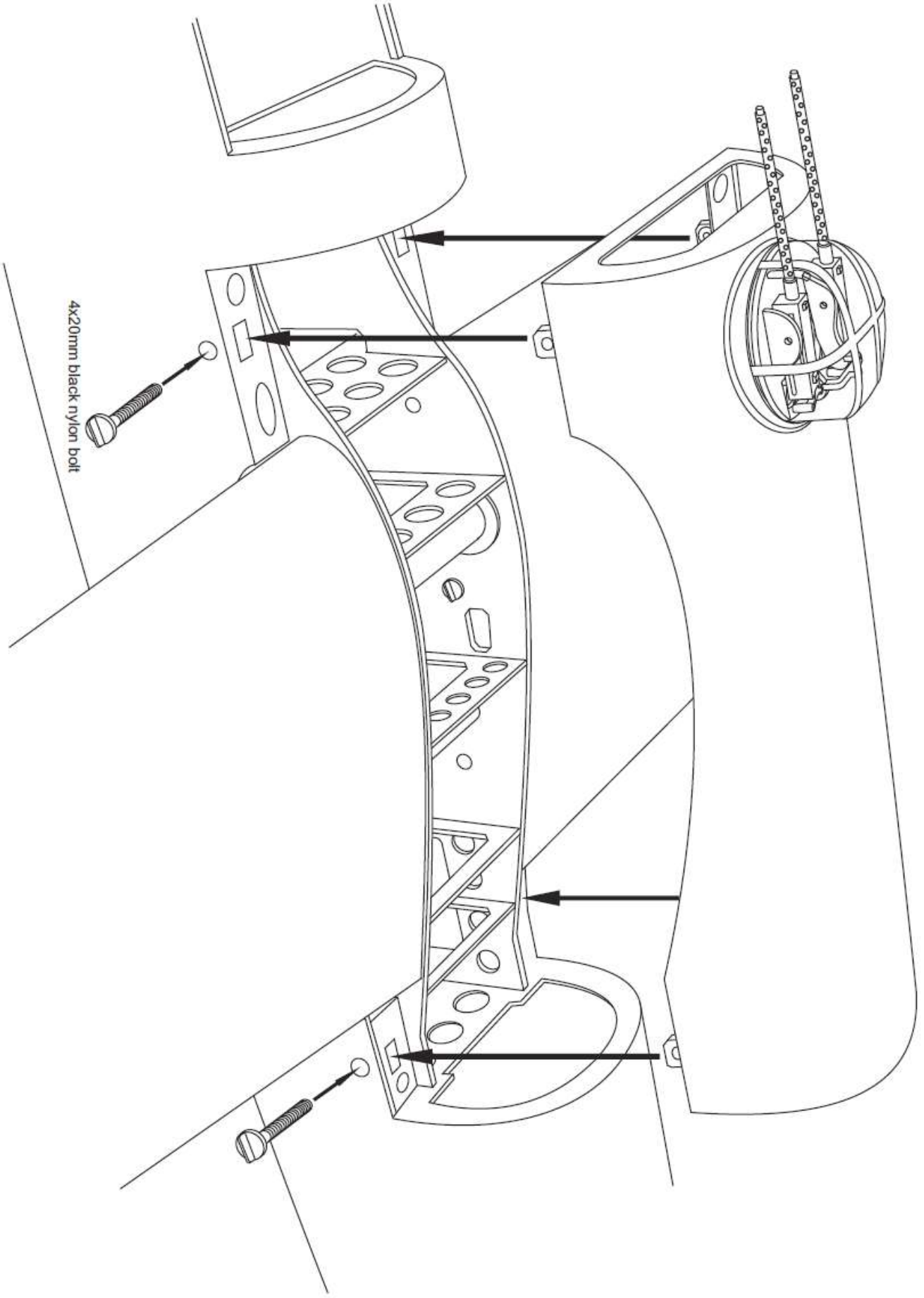


B-24 LIBERATOR 37- JOINING THE WING HALVES

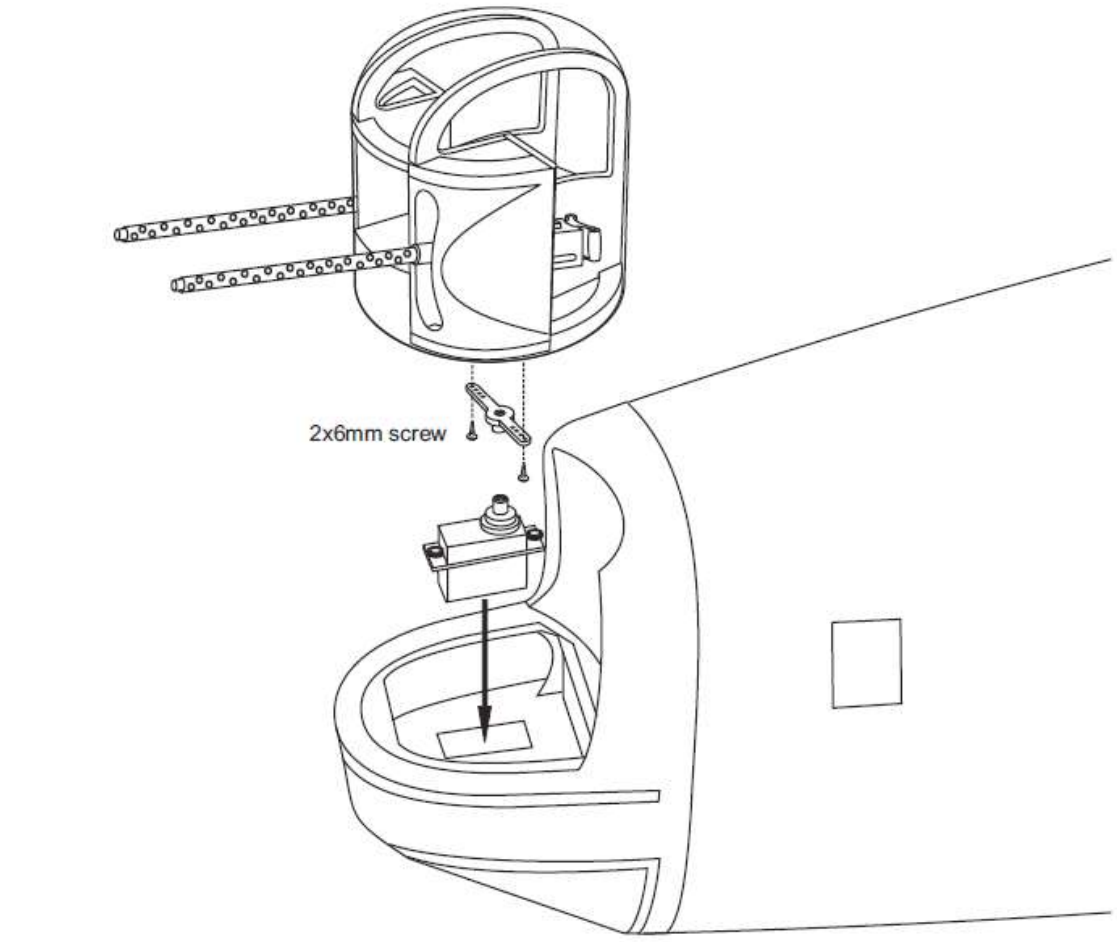


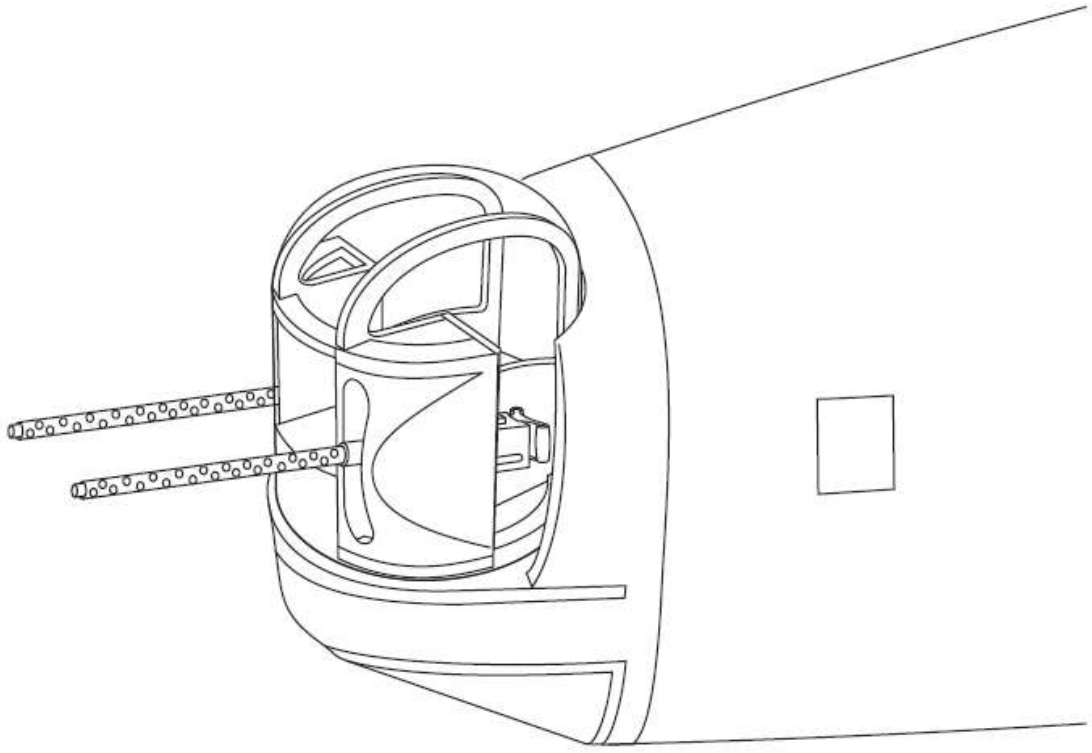

7x20mm black nylon bolt

B-24 LIBERATOR 39- TOP HATCH INSTALLATION

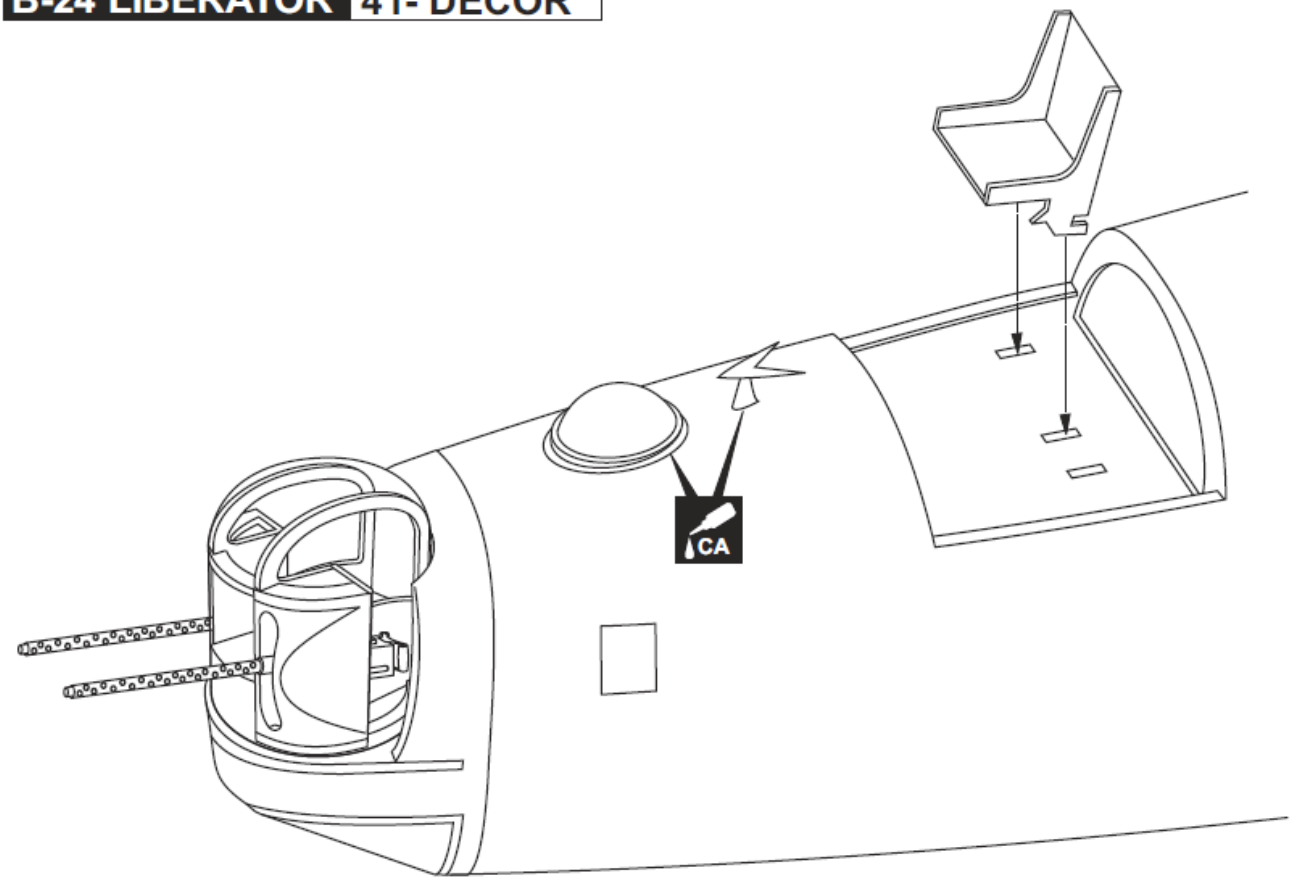


B-24 LIBERATOR 40- NOSE TURRET INSTALLATION

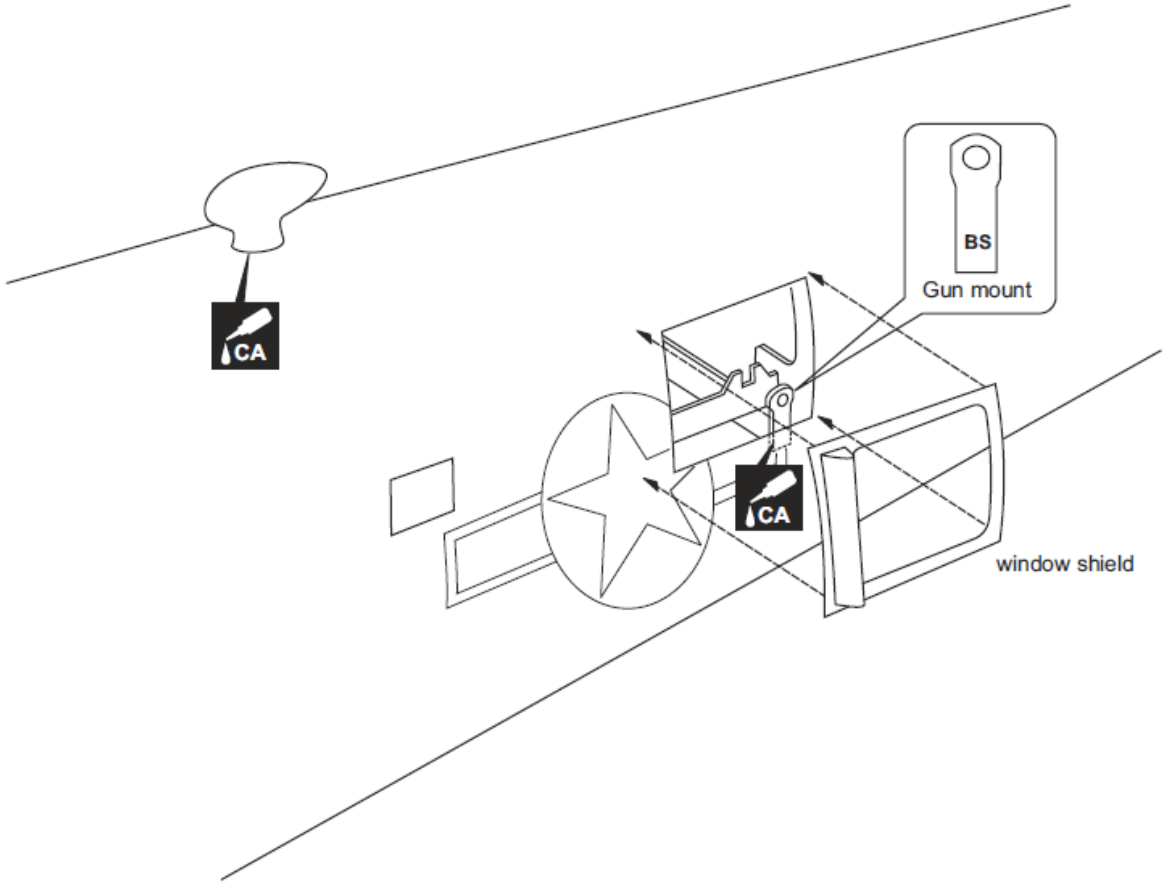




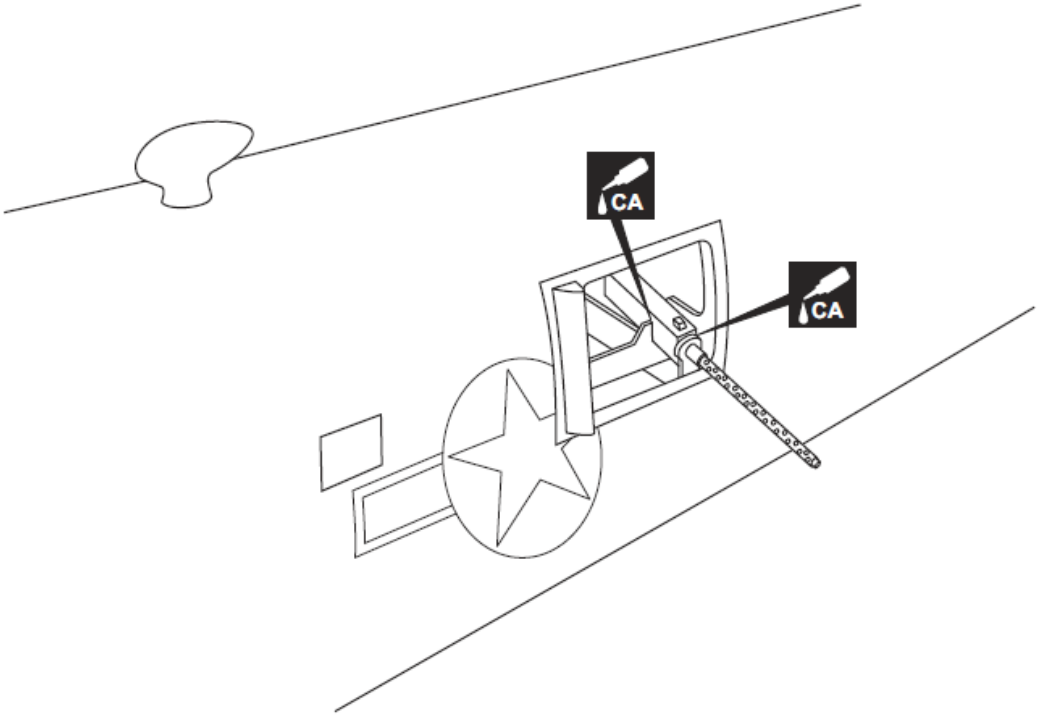
B-24 LIBERATOR 41- DECOR



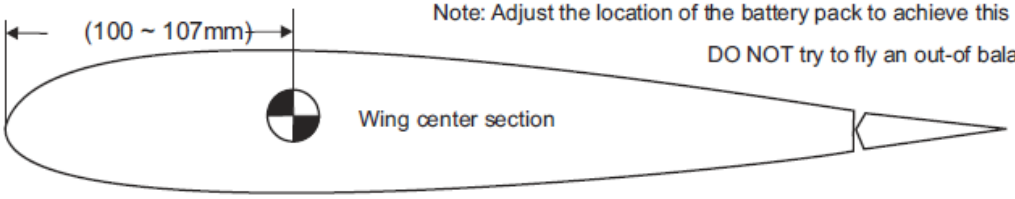
B-24 LIBERATOR 42- SIDE GUN MOUNT & WINDOW SHIELD



B-24 LIBERATOR 43- SIDE GUN



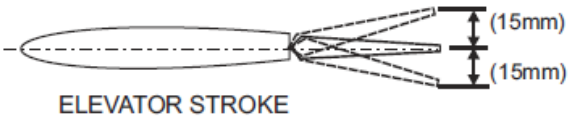
B-24 LIBERATOR 44- BALANCE



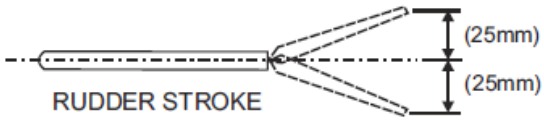
Note: Adjust the location of the battery pack to achieve this C.G location.

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

B-24 LIBERATOR 45- CONTROL SURFACE

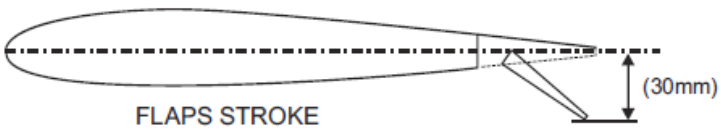


ELEVATOR STROKE



RUDDER STROKE

AILERON STROKE

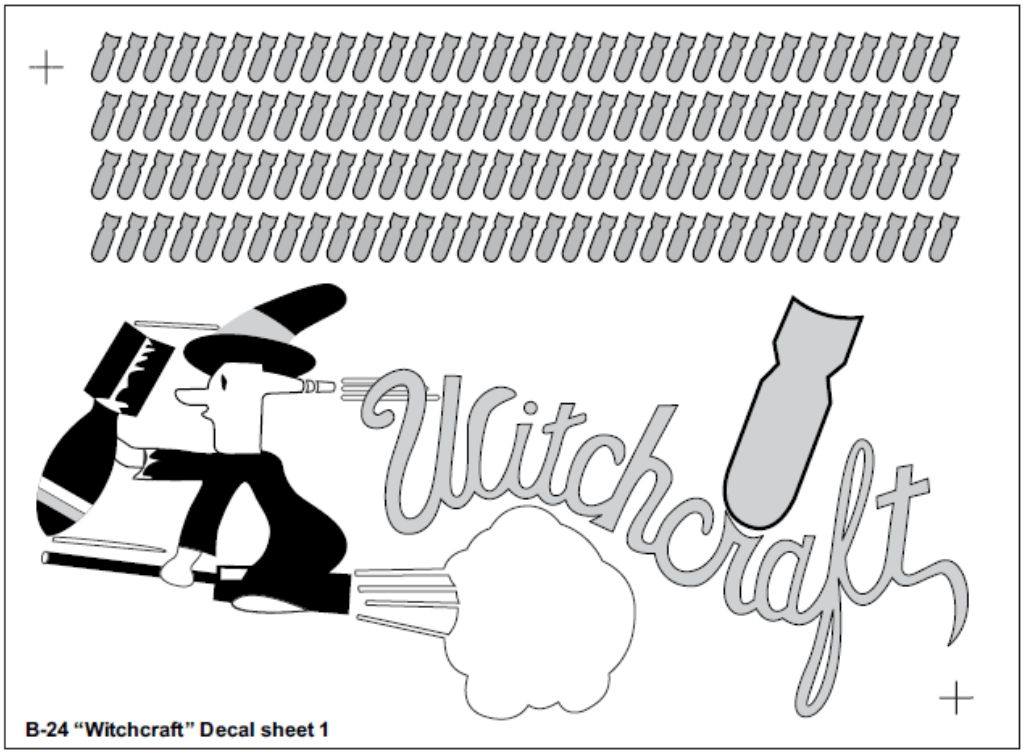


FLAPS STROKE

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.

B-24 LIBERATOR 46- DECAL

B-24 Olive



B-24 "Witchcraft" Decal sheet 1

B-24 "Witchcraft" Decal sheet 2

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 ceases occur.
Cut off the excess that is produced.

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

B-24 LIBERATOR 46- DECAL

B-24 Silver