

ROBAN

Airwolf 600

with

HSM-600 Mechanics

Instruction Manual



CCPM SCALE RC HELICOPTER

Compactor 600 Manual – Airwolf

Version 1.0 – December 2017 (German)

Version 1.1 – English Translation - September 2024

Roban Limited
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SPECIFICATIONS

Fuselage Length:	1360mm
Fuselage Width:	460mm
Fuselage Height:	380mm
Main Rotor Diameter:	1360mm
Main Blade Size:	600mm
Tail Rotor Diameter:	260mm
Tail Blade Size:	95mm
Main Shaft Diameter:	10mm
Tail Shaft Diameter:	5mm
Feathering Shaft Diameter:	8mm
Battery Compartment:	120x60x180mm
Motor:*	1x 600 size 750-1100KV brushless outrunner, 6S capable
ESC:*	1x 100A brushless, 6S capable
Servo:*	3x Metal Gear Standard size Cyclic, 1x Metal Gear Standard Tail Servo
Battery:*	22.2V 5000mAh 35C+
Flight Time (approximate):	5 Minutes
Takeoff Gross Weight:	6900g
Flight Controller:*	3 Axis Flybarless Gyro
Radio System:*	Min. 6 channel with pitch and throttle curves
Main Rotor Gear Ratio	10.91:1
Tail Rotor to Main Rotor Ratio	4.95:1

**) Optional accessories*

The Compactor System is a mature and proven set of RC scale helicopter mechanics. Our goal was to create a user-friendly helicopter that could be set up in a short time. Please read this instruction manual carefully and follow the instructions to assemble your model correctly. Under www.robamodel.com you will find updates and news about the product. Thank you for purchasing a Compactor, we hope you enjoy the product! Roban Limited

IMPORTANT NOTES

- **This remote-controlled helicopter is not a toy.
- *This remote-controlled helicopter is a dangerous machine that can injure yourself and others.
- *This remotely operated helicopter is a complex device and must be set up and operated as intended.
- *This remotely piloted helicopter must be set up according to these instructions. Failure to do so can lead to accidents and unsafe operating conditions.
- *Inexperienced pilots should seek the advice and support of experienced pilots.
- *The necessary safety measures such as protective equipment and safety distances must be observed or observed.
- *This remotely operated helicopter must be operated outdoors with sufficient distance from people, animals or objects that may be damaged or injured by the helicopter.
- *The aircraft may behave unexpectedly or lose the radio signal. Ensure your radio failsafe is set properly prior to your first flight

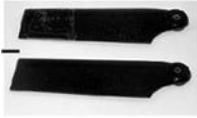
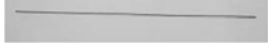
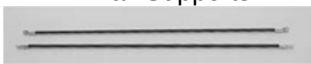
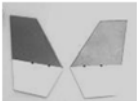
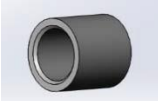
WARNINGS

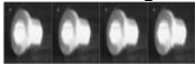
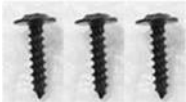
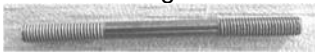
- *Fly only in area designated for model aircraft flight.
- *Follow the instruction manual of your radio and electronics
- *It is important that you know your radio system. Always check all controls and functions before each flight.
- *The rotor blades of the helicopter reach high speeds. Always be aware of the danger that this poses.
- *Never fly near humans and animals.

INSTRUCTIONS FOR ASSEMBLY

Please fly to this instruction manual of this model helicopter. Please follow the steps in the order of the user manual. The instruction manual is divided into chapters, and each subsequent chapter assumes that you have already completed the last step. Nut threadlocker and bearing locking device as described. In general, any metal-to-metal connection requires the use of threadlockers. We recommend that you do not use CA-based superglue for the painted add-on parts. Normal superglue leaves white residue near the glue point, there are special superglues that stick without leaving any residue.

PARTS LIST:

1 – Main frame 	2 – Tail rotor assembly 	3 – Main Rotor Head 	4 – Pulley 
5 – Tail Boom Holder 	6 – Ball Links x8 	7 – Tail Servo Mount 	8 – Main Blades 
9 – Tail Blades 	10 – Linkage guides x2 	11 – Tail servo pushrod 	12 – Heckrohr 
13 – Torque tube 	14 – Tail Supports x2 	15 – Torque Tube Bearings x2 	16 – Servo Holders x2 
17 – Horizontal Stabilizers x2 	18 – Vertical Fin 	19 – H-stab End Plates x2 	20 – Weapon End Caps 
21 – Weapon mounting plates x2 	22 – Windshield x1 	23 – Upper Windows x2 	24 – Chin Windows x2 
25 – Aft Windows x2 	26 – Tail stinger 	27 – Pitot tube x2 	28 – Windshield wipers 
29 – Slats x2 	30 – Refueling Probe 	31 – Scale Component 5 	32 – Landing Gear Bracket x2 
33 – Retaining Bolts Weapons x8 	34 – Aluminium guide 5x7x7 x1 	35 – Aluminium guide 5x7x5.5 x1 	36 – Aluminium guide 5x7x10 x4 

37 – Aluminium guide x4 	38 – Aluminium guide x2 	39 – Gear levers x3 	40 – L Brackets x4 
41 – Shims M3 x5 	42 – Bolts Mx14 x5 	43 – Screws M2x6 x6 	44 – Nut plates x6 
45 – Washer M2 x8 	46 – Bolts M2x5 x8 	47 – Screws A2x8 x4 	48 – Screws A3x12 x3 
49 – Bolts M3x10 x4 	50 – Bolts M3x12 x6 	51 – Lock Nuts M3 x4 	52 – Washers M3 x8 
53 – Ball Links x4 	54 –Nuts M2 x4 	55 – Bolts M3x50 x8 	56 – Linkage 2.3x55 x2 
57 – Linkage 2.3x32 	58 – Shaft 5x66 	59 –Shaft 5x108 	60 – Shaft 5x108 
61 – Left Retract x1 	62 – Standard Retract x2 	63 – Nose Strut x1 	64 – Main Strut x2 
65 – Y Harness 	66 – LED Light Red 	67 – LED Light Green 	68 – LED Extension x4 
69 – LED Covers x2 	70 – LED Cover 	71 – LED Light Red x2 	72 – LED Light white 

73 – LED Controller 	74 – EVA Tail Holder 	75 – Decal Set 	76 – Instrument Panel 
77 – Overhead Panel 	78 – Center Console 	79 – Seat Bottom x2 	80 – Seat x2 
81 – Collective 	82 – Cyclic x2 	83 – Pedals x4 	84 – Pedal Footrests x2 
85 – Collective 	86 – Cannon x2 	87 – Ammo Box x2 	88 – Ammo Mags x2 
89 – Cannon part x2 	90 – Camera Systems x2 	91 – Extension cable 60cm 	92 – Extension cable 70cm 
93 – Rocket Launcher  optional			

ELECTRONICS REQUIRED

- *Motor:
6S – 750-1100Kv,
With 6mm shaft
- *ESC:
minimum 100A
- *Battery: 6S 5000mAh
- *1 flybarless controller
- * BEC power supply
- *3 servos cyclic, 600 type
- *1 servos tail, 600 type
- *6 channel radio remote control with throttle/pitch
curve

TOOLS/ACCESSORIES

- * String cutter
- *Allen key
, 1.5, 2, 2.5, 3, 4mm
- *5.5mm Socket wrench (M3 Nuts)
- *8mm Hex wrench (M5 Nuts)
- *Medium threadlocker (eg. Loctite 243)
- *Strong retaining compound (eg. Loctite 648)
- *Spray lubricant (eg. Tri-Flow Oil)
- *Synthetic grease (eg. Tri-Flow Synthetic Grease)
- *Cyanoacrylate adhesive
- *Pitch Gauge (for set-up)
- *Soldering equipment (for motor wiring)

Package Contents:



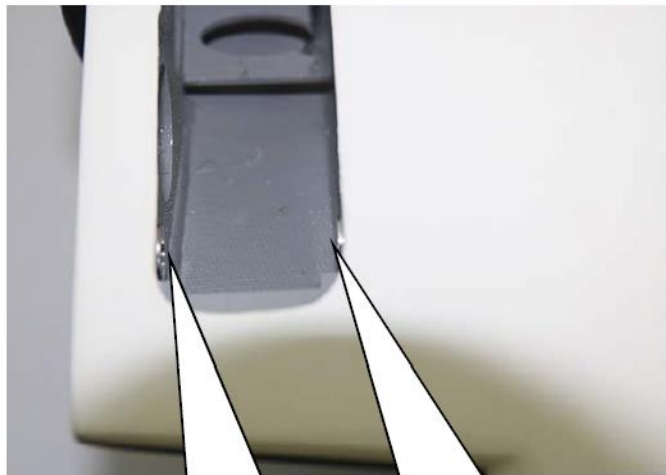
Inside the main box:

- 1: Operating instructions
- 2: Fuselage
- 3: Tail stabilizers
- 4: Scale parts, accessories
- 5: Tail boom, blades, linkages, struts
- 6: Mechanics

Preparing the Fuselage

Before installing the mechanics, please follow the steps below. After the mechanism has been installed, most places of the mechanism are inaccessible.

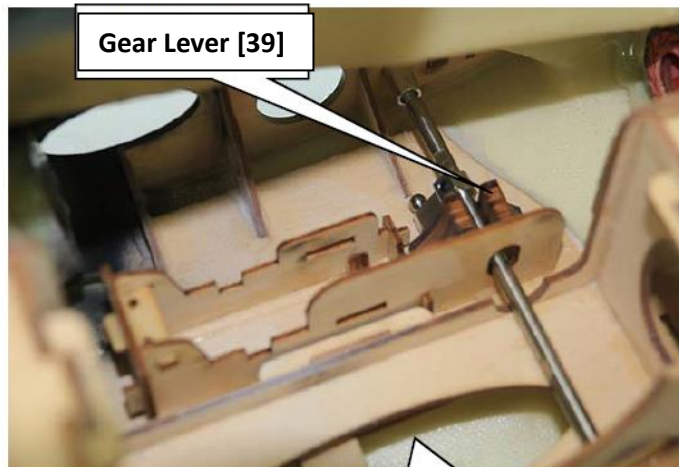
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Aluminum Guide [37]

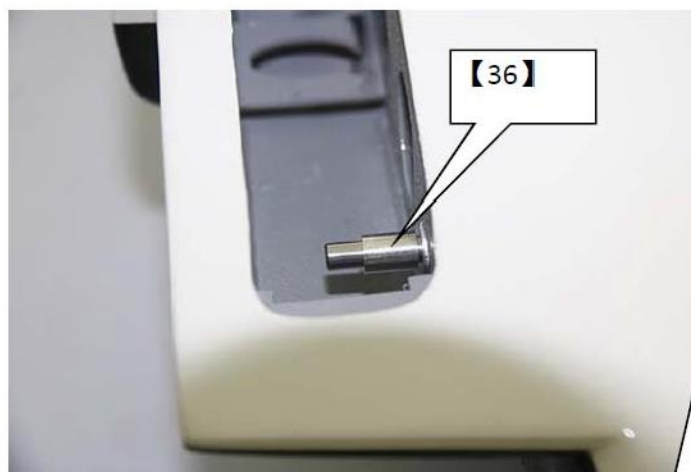
Aluminum Guide [38]

Fit the Aluminum Guide Bushings [37] [38] as shown. Insert the Main Gear Pivot Shaft [60] (5x108mm) to maintain alignment between the bushing, then glue the bushing to the plywood taking care to avoid getting glue on the shaft.

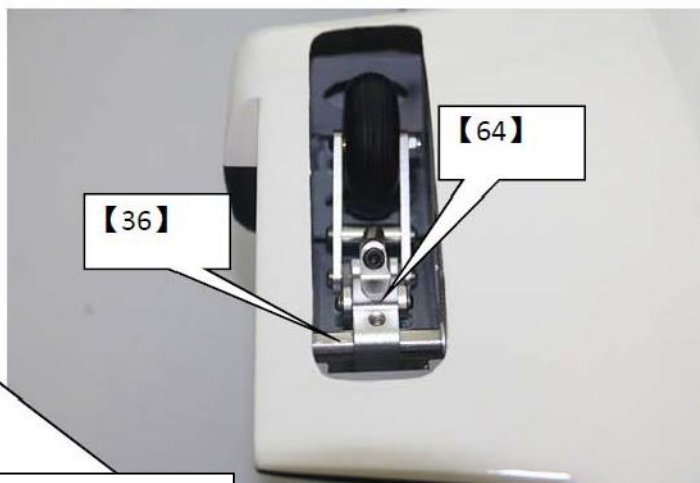


Gear Lever [39]

Mount the gear lever [39] on the shaft as shown aligning the set screw with the flat spot on the shaft.



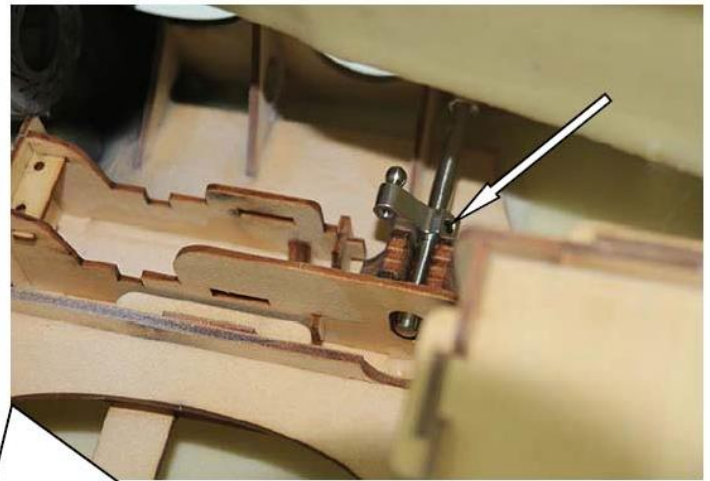
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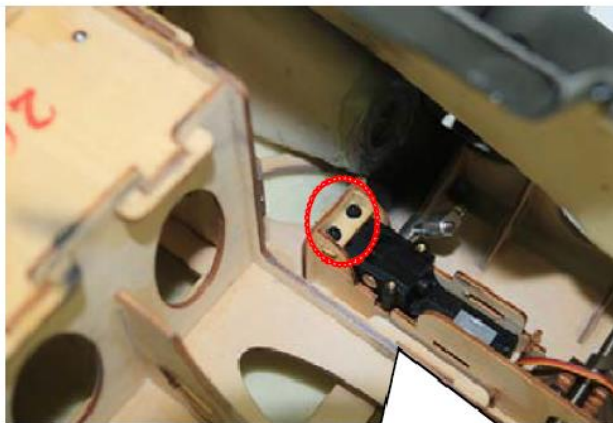
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【64】

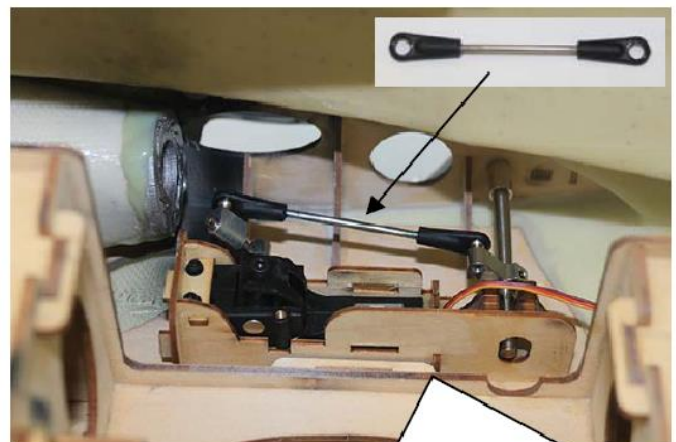
Mount the gear shaft [60] and add 2 spacers [36] on either side of the main gear strut [64] as shown



Make sure the main gear set screw grips the flat spot of the shaft, and that the gear lever is positioned as shown with the gear retracted



Install the right main retract unit [62] and secure it with M2x5mm screws [46] and M2 Washer [45] as shown

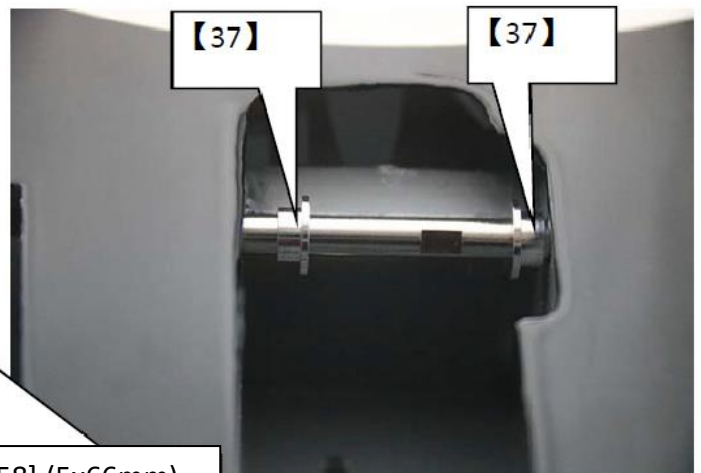


Assemble the pushrod: screw ball links [06] to gear pushrod [56] (2.3x55). Adjust the length as needed and connect the linkage from the retract unit to the gear lever. Verify smooth gear operation with a servo tester.

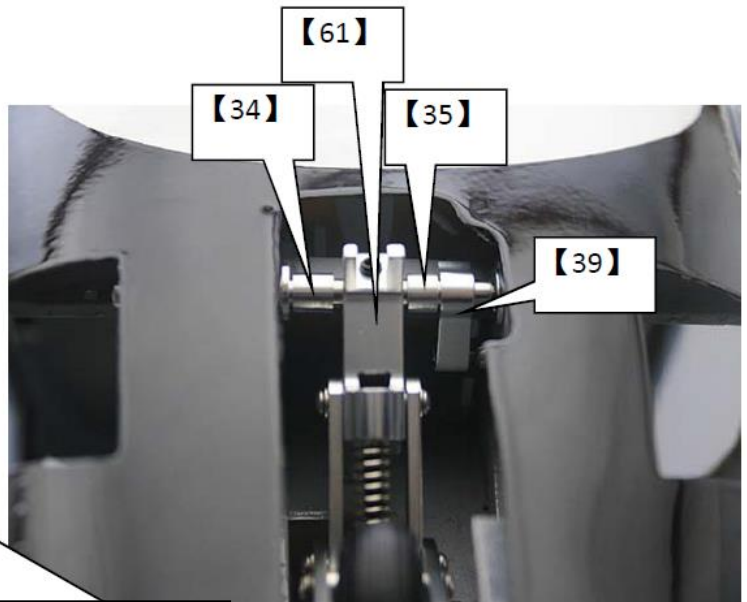
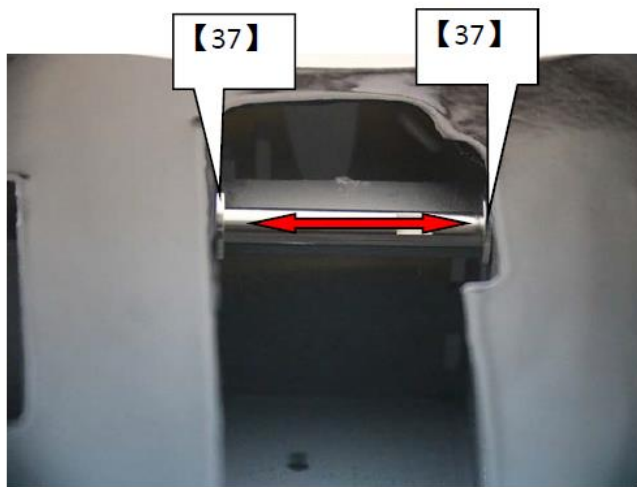
In the extended position, the fingers on the aft side of the main gear struts should rest against the gear supports. This ensures that the torque from landing loads is transferred to the struture instead of the retract unit. Adjust the pushrod length until this spacing is correct

Mirror this install process for the left main gear.

Nose Retract Installation



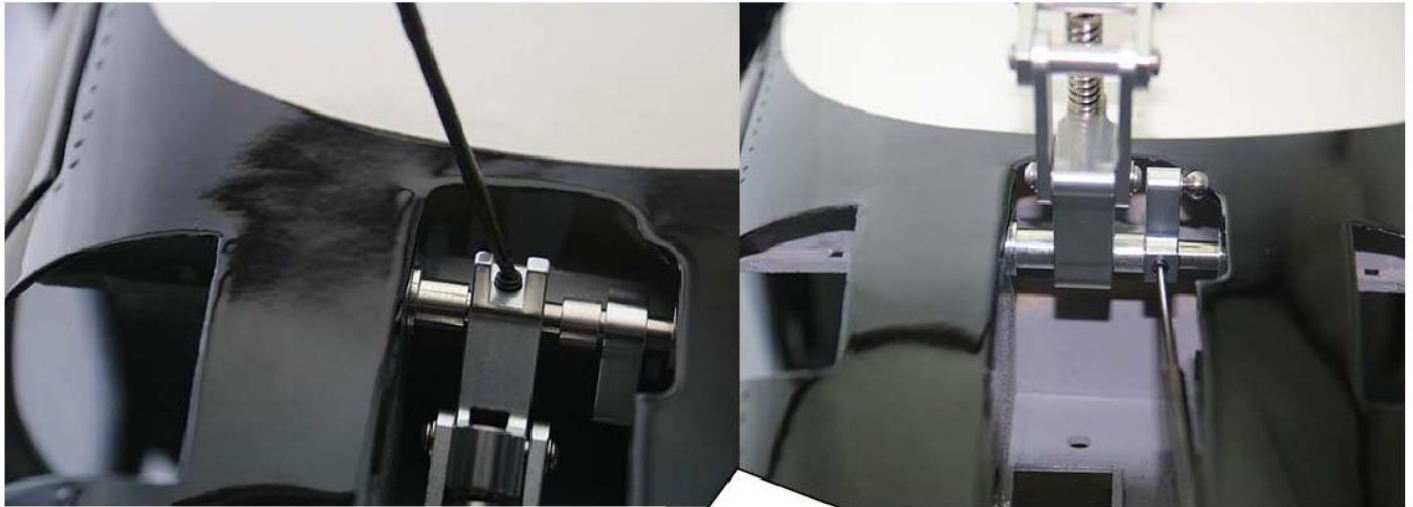
Insert the nose gear pivot shaft [58] (5x66mm) and fit the aluminum bushings [37] to the plywood of both sides of the nose gear bay



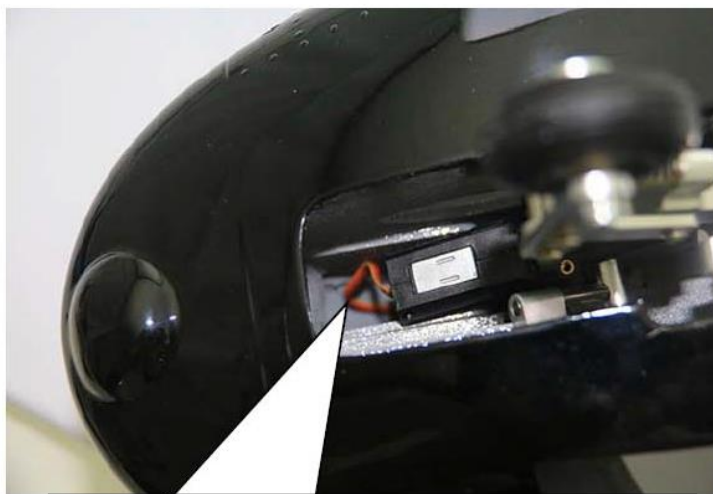
Glue the the bushings [37] to the plywood using the shaft to keep them aligned.

After the glue has set, slide the aluminum spacers [35], [34], nose strut [61], and fwd gear arm [39] arranged as shown above.

Ensure that the set screws on the nose strut and gear arm align with the flat spots on the the shaft.



Tighten both set screws on the nose strut and gear arm. Ensure these grip the flat spots securely.

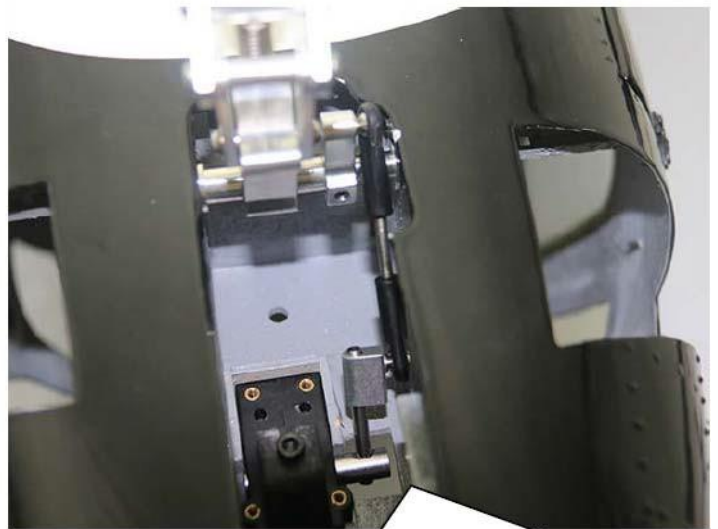


Install the nose retract unit [62] as shown. Make sure the wire lead is correctly routed as shown

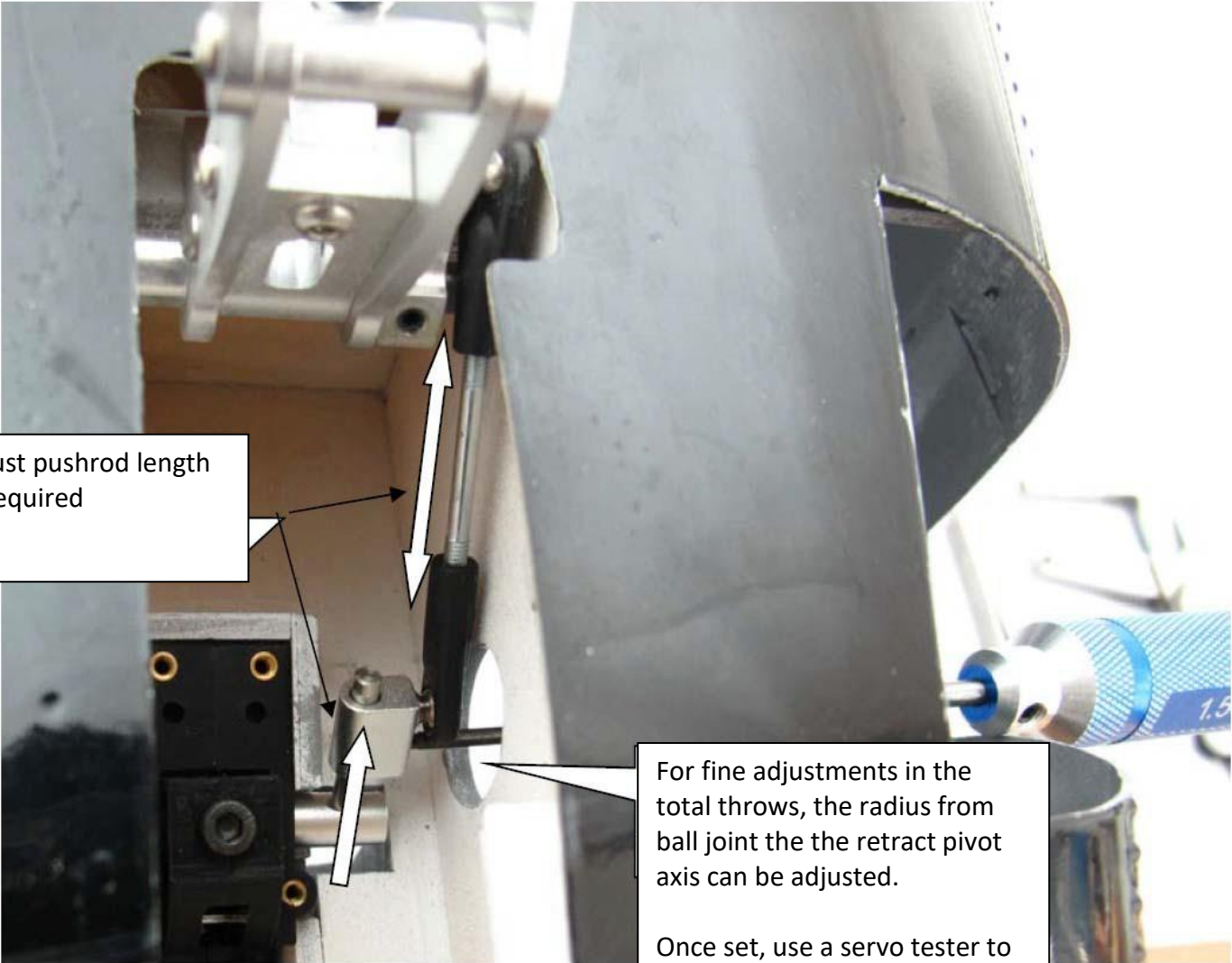




Anchor the retract unit in place with M2x5 screws and M2 washers [45], [46]



Assemble the pushrod M2.3x32 [57] by screwing on 2 ball links [06]. Adjust length as required.



Adjust pushrod length
as required

For fine adjustments in the
total throws, the radius from
ball joint the the retract pivot
axis can be adjusted.

Once set, use a servo tester to
confirm correct operation.

When extended, ensure that
the fingers on the aft side of
the nose strut rest against the
nose gear stop. This ensures
that torque from landing loads
are not transferred to the
retract unit.



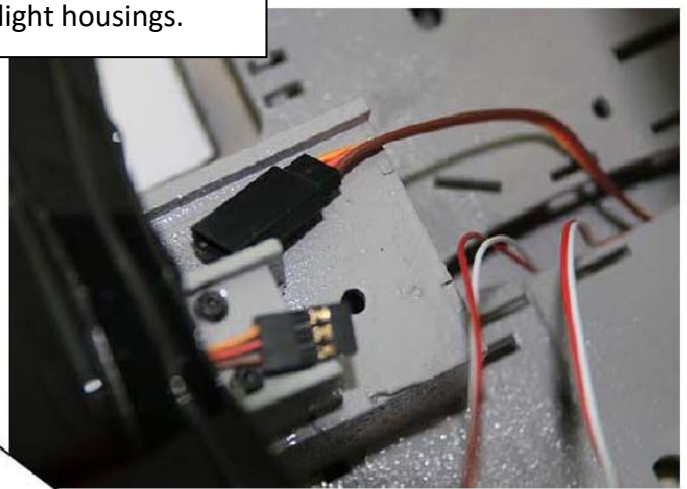
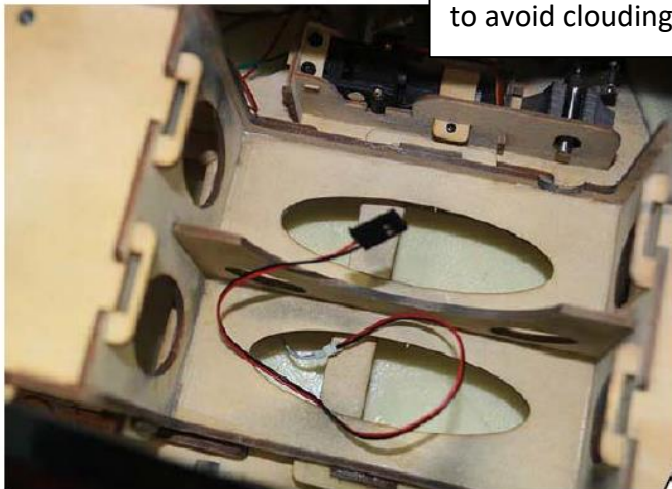
Insert a Red LED in the LH sponson



Insert the lights into the sponson as shown. Route the wire leads towards the mechanics tray in the upper center of the fuselage. Glue the LEDs in place. Use non-fogging adhesive (canopy glue) to avoid clouding the light housings.



Insert a green LED in the RH sponson



Position wire leads inside the fuselage as shown with extensions [91] and [92]



Route wiring for the overhead control panel [77] as shown



Connect wiring to the extension cable [92]



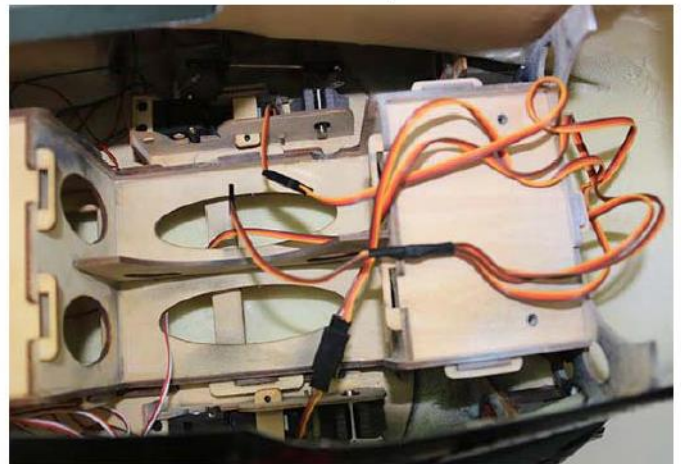
Glue the overhead control panel as shown



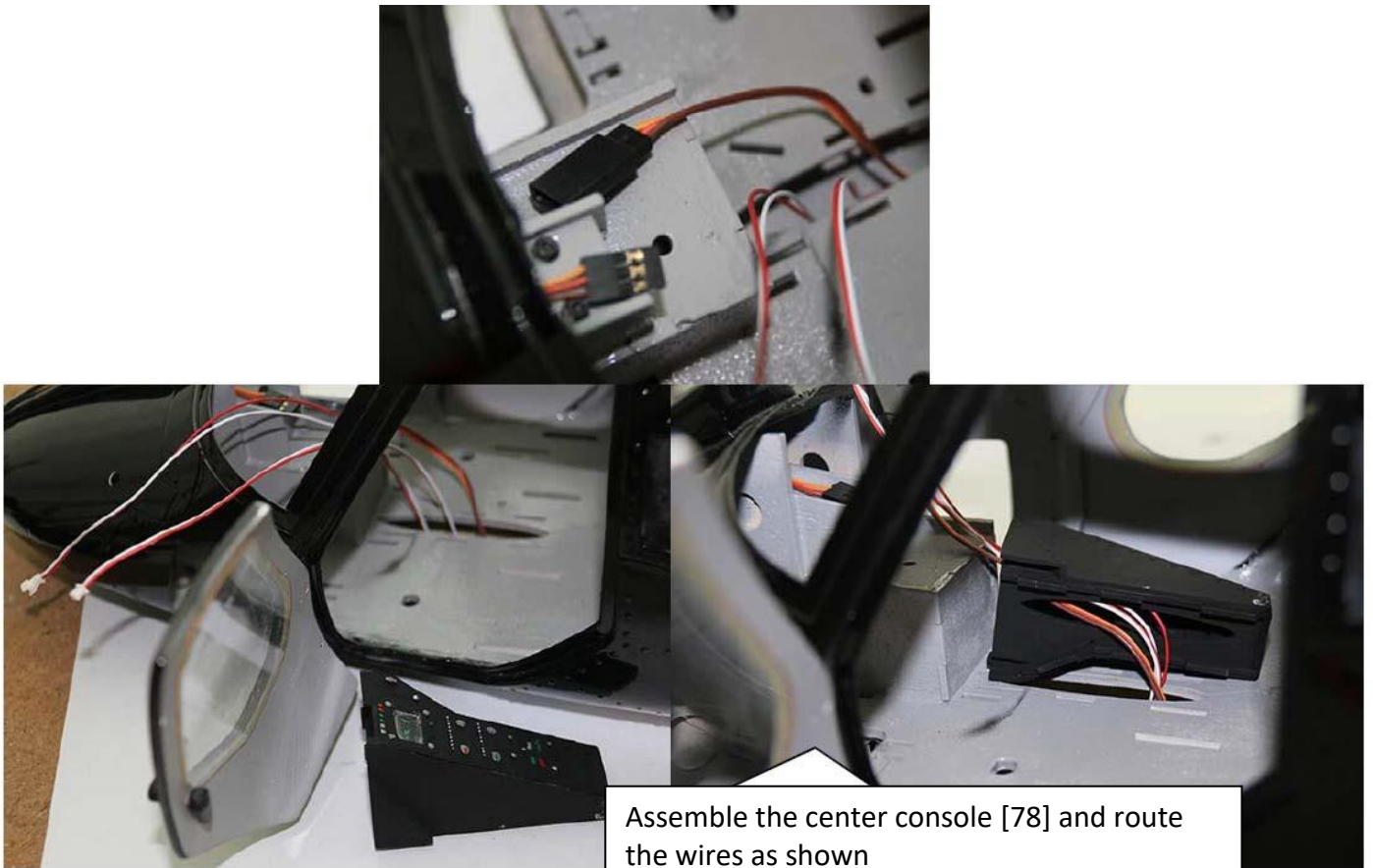
Install the upper LED [71] into the cowling as shown and glue the LED housing in place over it.

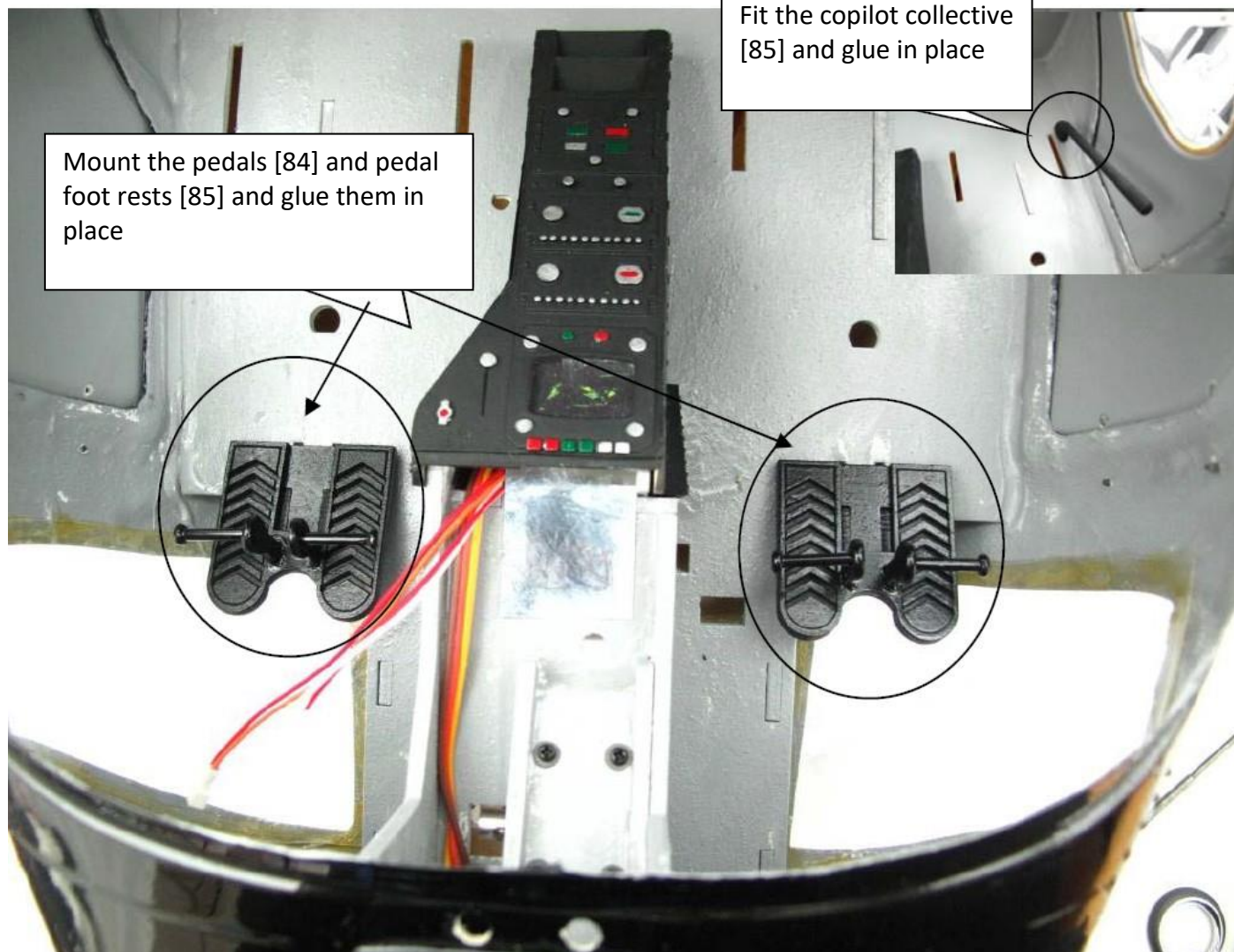


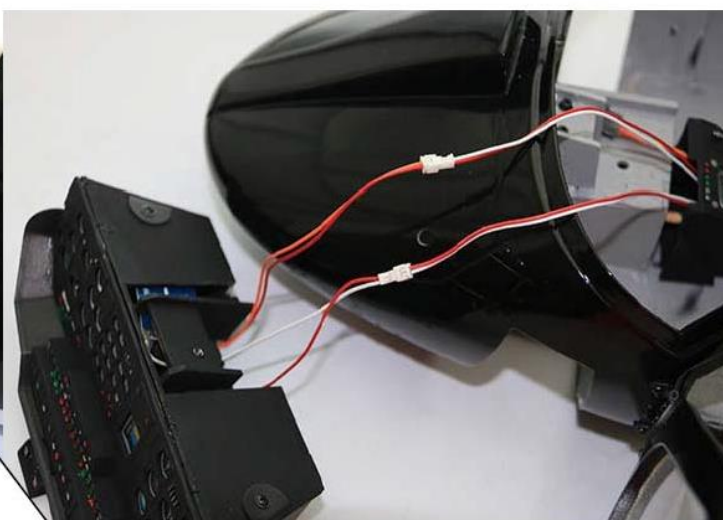
Install the lower LED [71] into the tail boom as shown and glue the LED housing in place over it.



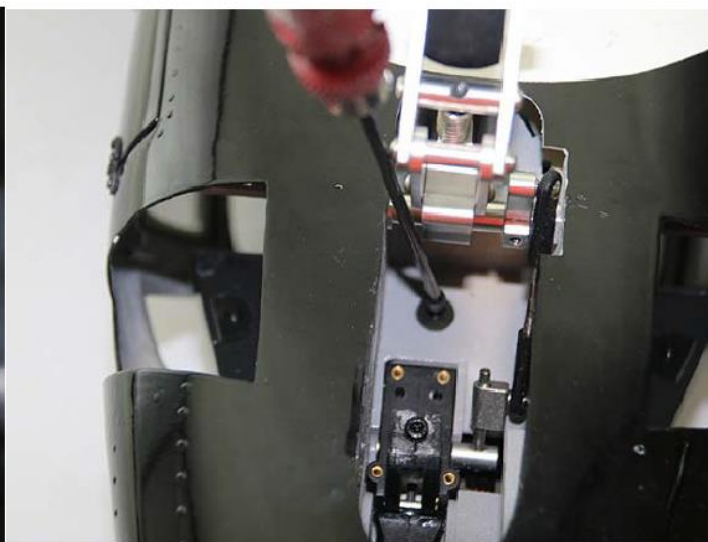
Connect all 3 retract units with the 3 way gear harness [65]. Test that all 3 landing gear function properly with a servo tester.



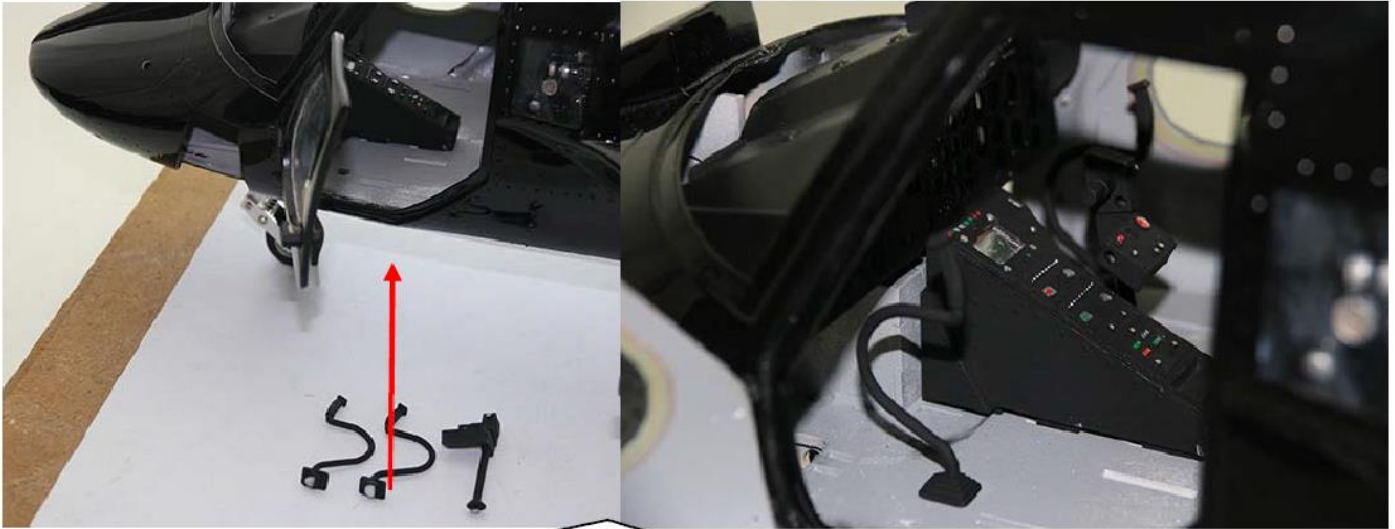




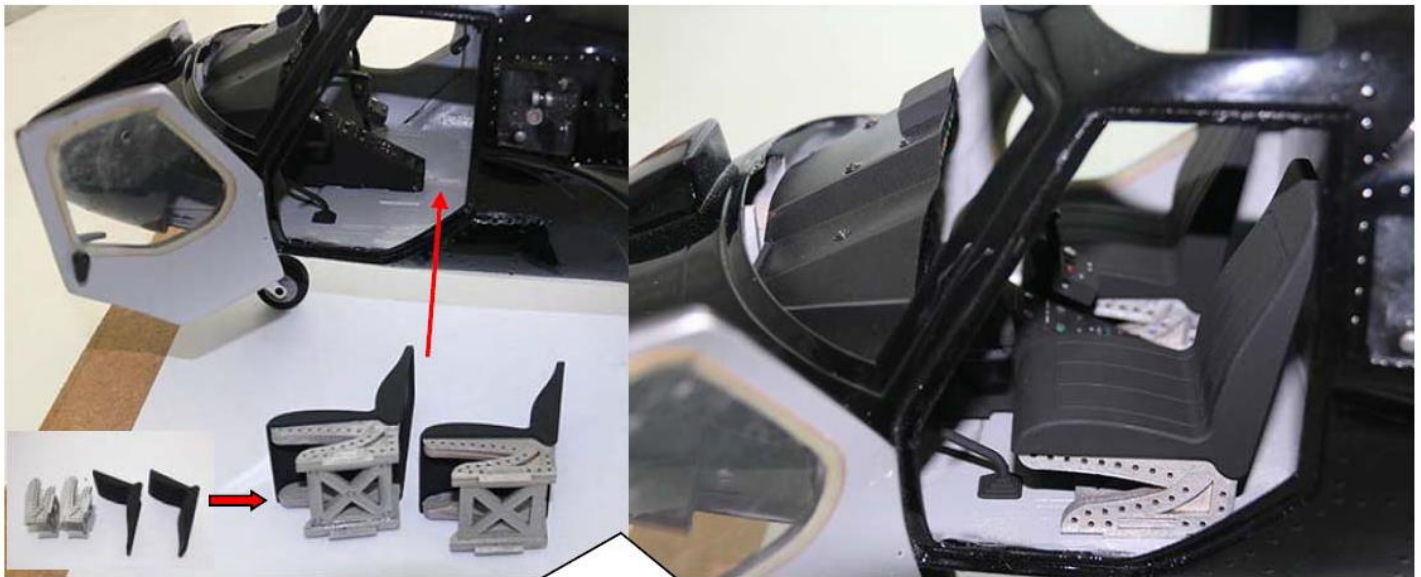
Connect the instrument panel [76] to the overhead panel and to the LED power supply (black heat shrunk unit with servo lead). After verifying that both panels light correctly, glue the center console in place.



Mount the instrument panel [76] in place and secure it with a screw [42] and washer [41] from the nose gear bay as shown

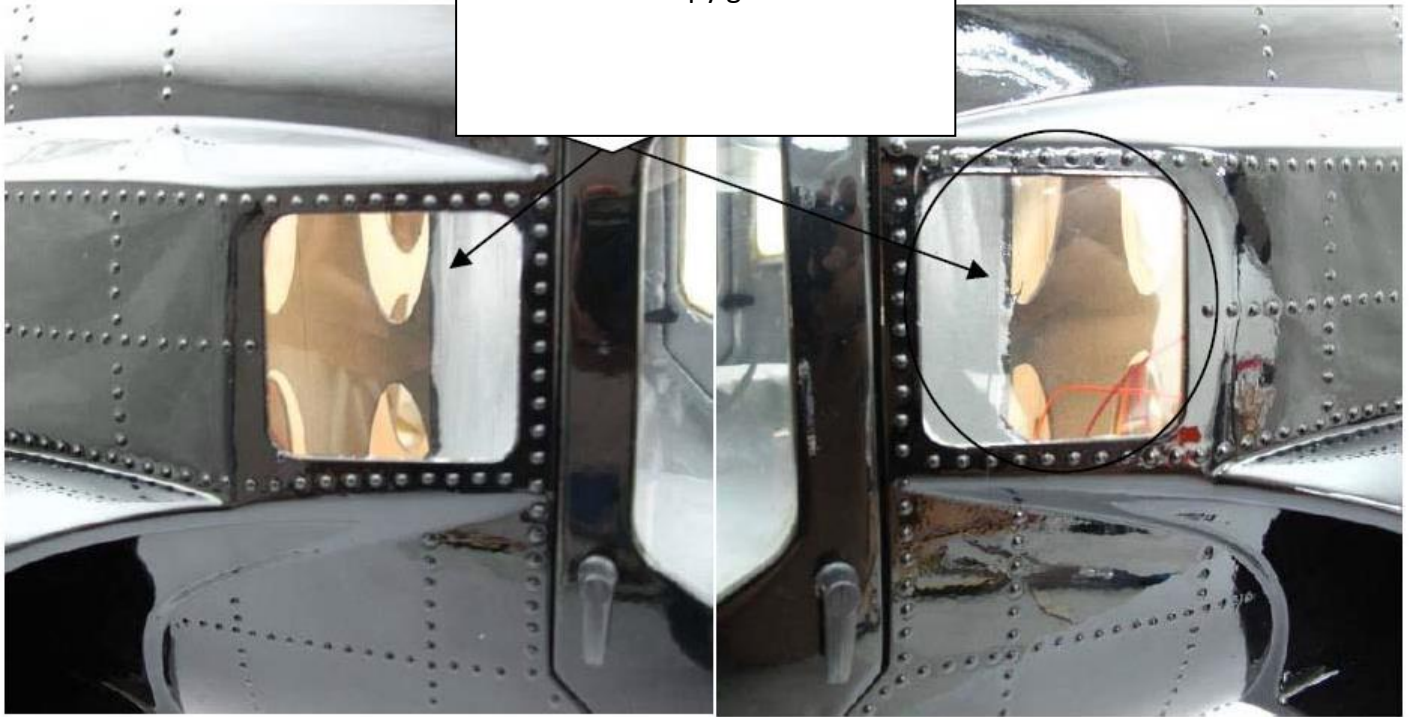


Mount the cyclics [82] and pilot collective [81] as shown and glue in place

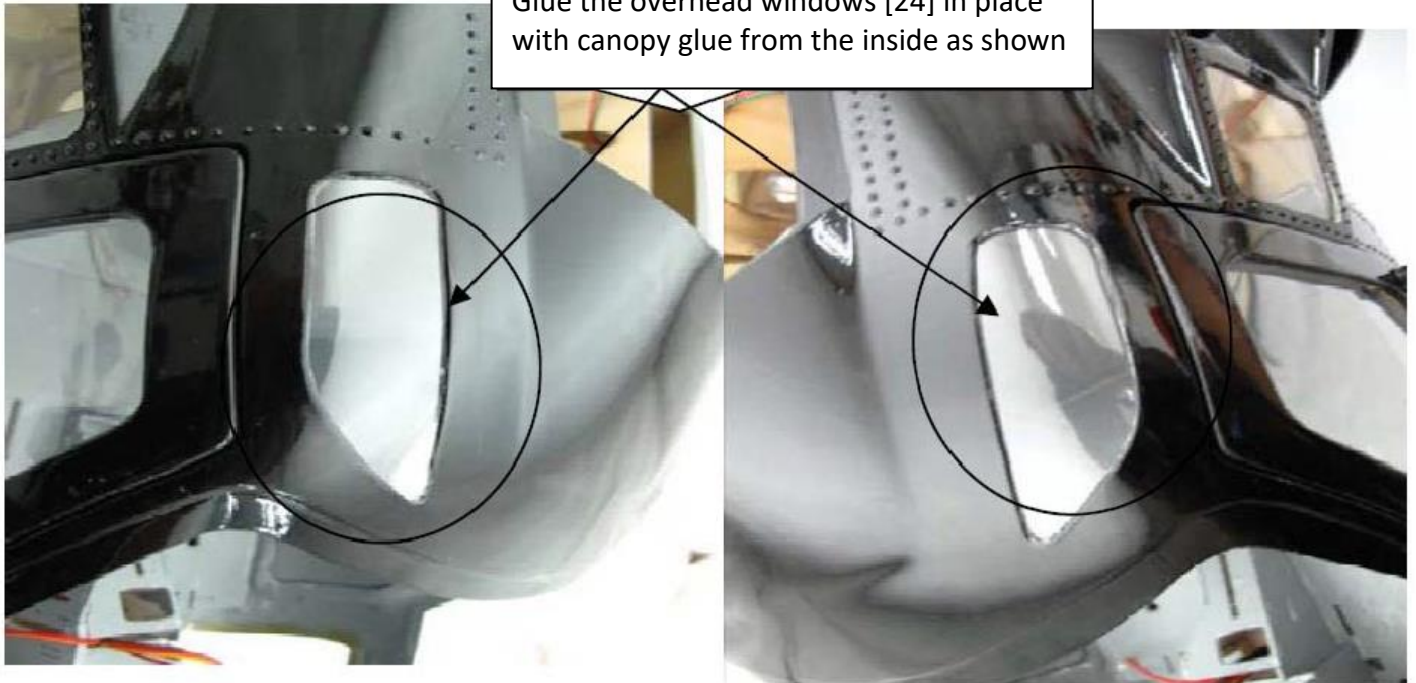


Assemble the seats by gluing parts [79] and [80] together. Then fit and glue the assembled seats into the cockpit

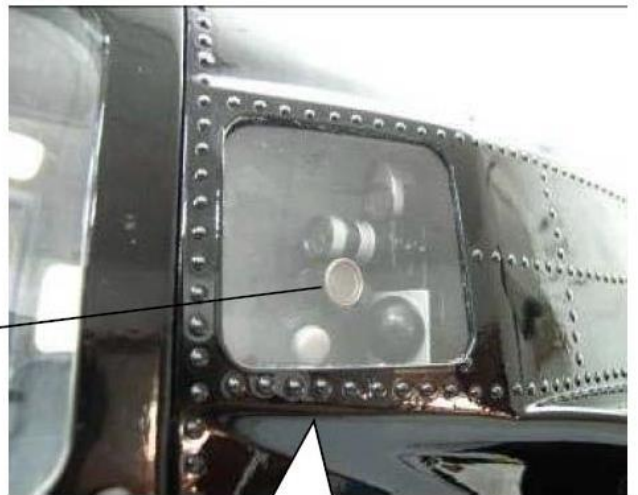
Glue the windows [25] from the inside with canopy glue as shown



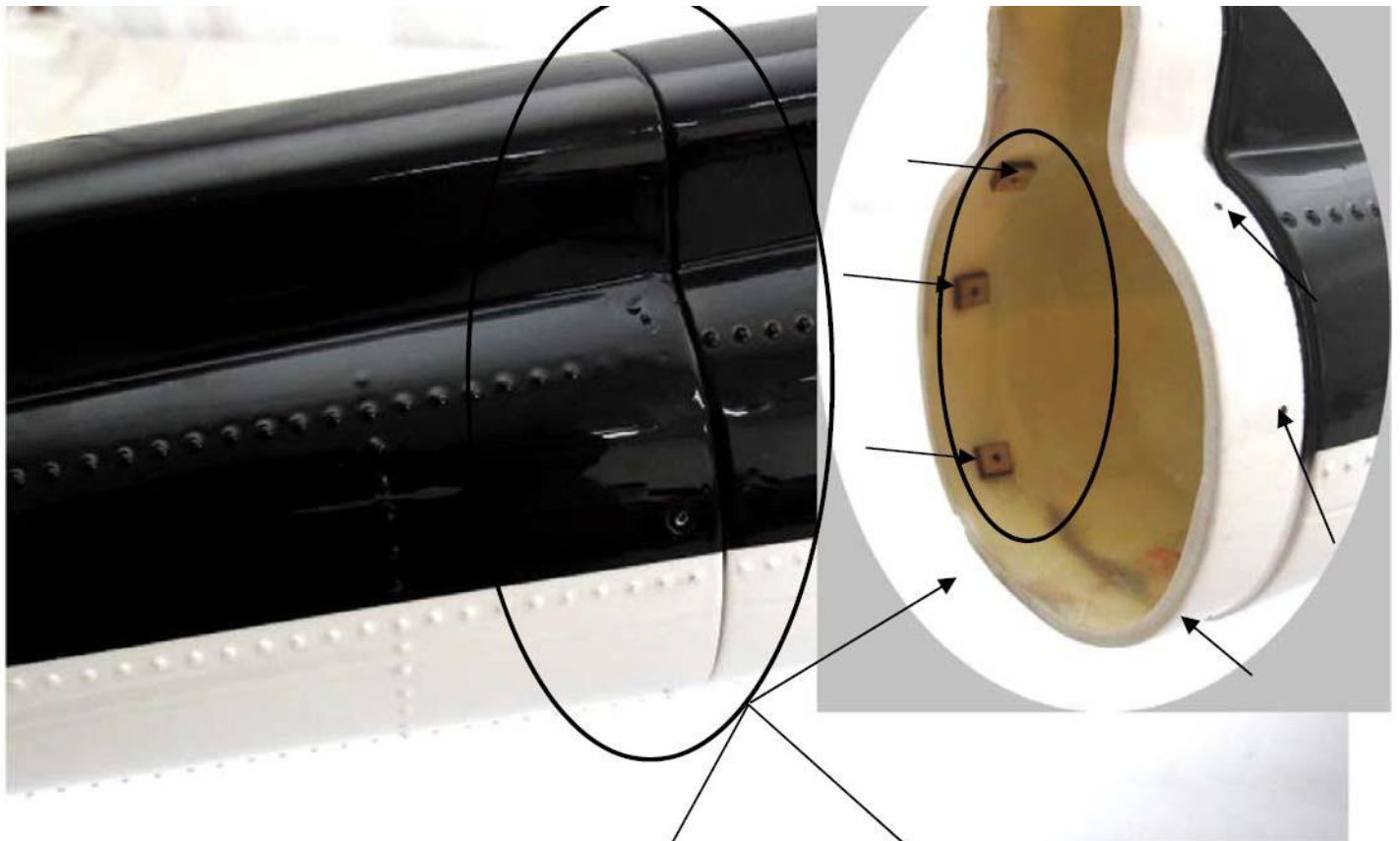
Glue the overhead windows [24] in place with canopy glue from the inside as shown



Glue the chin windows [23] in place with canopy glue from the inside as shown



Glue camera units [90] in place with canopy glue or epoxy from the inside as shown.



Align and fit the tail boom section on the fuselage. Fix it in place with tape. Then drill 6 2mm holes through the tail and fuselage as shown. After drilling, remove the tail boom.

Glue the wooden nut plates [44] using epoxy from the inside of the fuselage-side of the joint as shown. Make sure that no glue contaminates the threads. Use the M2 screws into the nutplates and use them to maintain pressure and alignment while the glue cures.

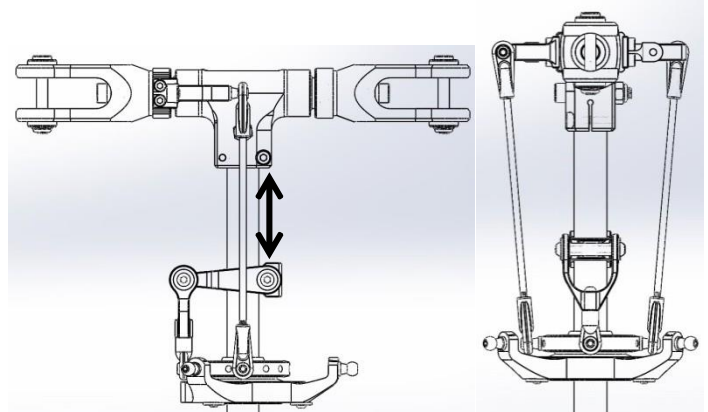
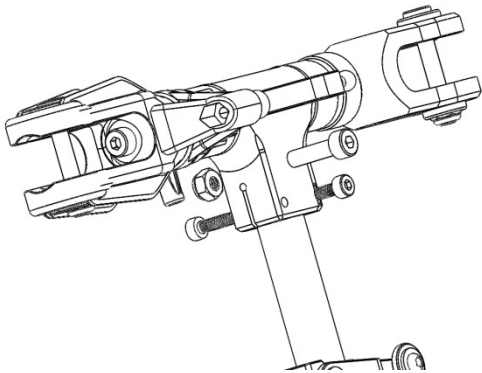
Assembly of the Mechanics

The mechanics are completely assembled and are delivered divided into four assemblies: rotor head, main frame, tail rotor and tail tube. Before installation in the fuselage, the mechanics including electronics must be completely assembled and tested. After installing the mechanism in the fuselage, many areas become inaccessible.

Step 1 – Rotor head

Slide the rotor head onto the main rotor shaft. Use bolt (70-00006) stop nut (70-00007) to secure the rotor head. Use screw (70-00008) to clamp the head onto the shaft.

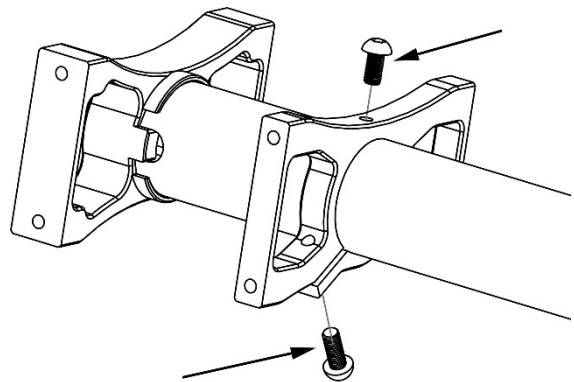
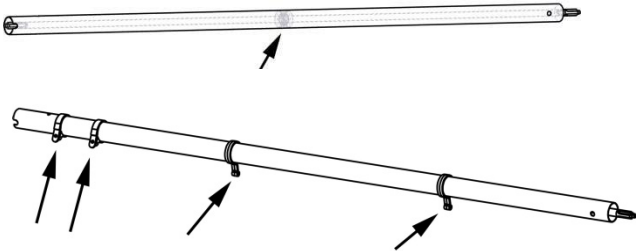
Set the timing of the rotor head correctly. The L-lever must be mounted in such a way that the control rods run parallel to the shaft. The distance between the lower edge of the rotor head and the upper edge of the shaft clamp is 35 mm.



Step 2 – Tail Rotor

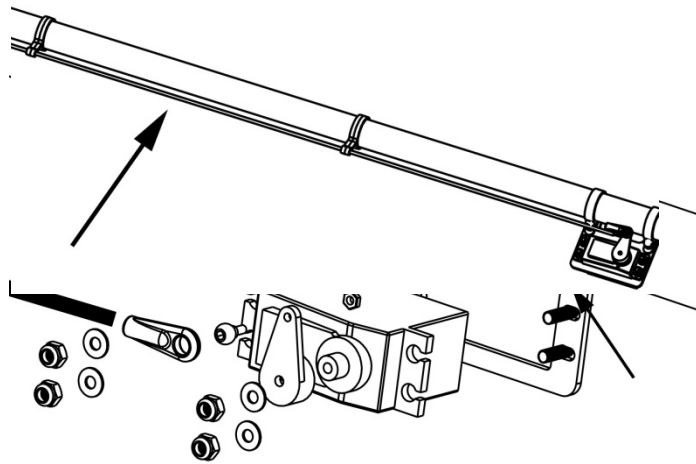
Install the ball bearings (70-00100) with the holders (02-02006) in the tail boom (70-00095). Distribute the bearings evenly in the rear boom. Apply some lubricant to be able to push the rubber bearings into place without any problems. Then install the strut mount (600UH1-007), the linkage guides (70-00040) and the tail servo mounts (70-00098). Finally, install the tail shaft (70-00096) in the tail boom.

Then insert the tail boom into the brackets (70-00093, 70-00094). Secure the position with screw M3x8 (70-00086) over the clamp and additionally with screw M3x6 (70-00053) as shown. Install the carbon rails (70-00104-70-00106) on the main frame and on the strut mount (600UH1-007).

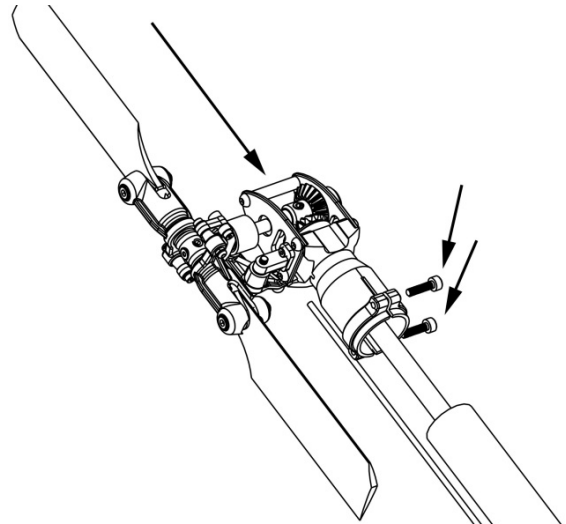


Step 3 – Tail servo installation

First, mount the retaining frame (70-00097) on the tube bracket (70-00098) using the M3x8 screw, then mount the tail servo of your choice using the M3x10 screw, washers and stop nuts as shown. Install the servo horn and the Uni-Ball on it. Then push the tail rotor linkage (70-00103) into the four guides.



Mount the ball head frame on both ends of the linkage. Distribute the guides evenly on the tail boom. Then install the tail rotor on the boom. Then fix it with three screws as shown, but still without threadlocker, as it has to be removed again.



Mount the tail struts underneath the boom and the tail servo and linkage on the upper side of the boom

Step 4 – Cyclic Servo Installation

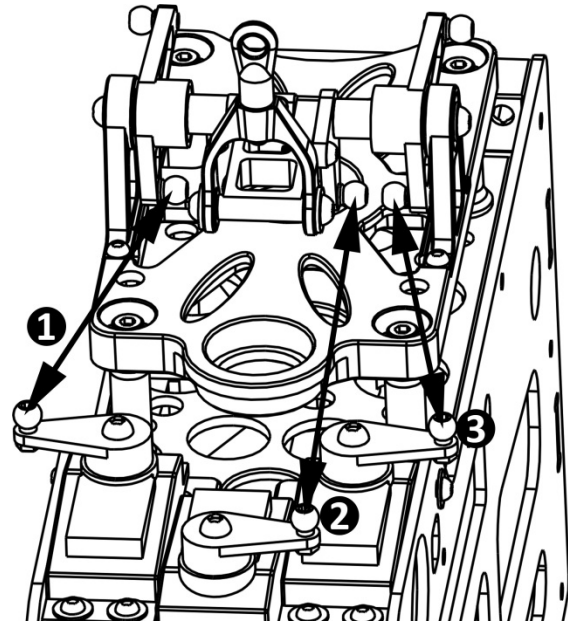
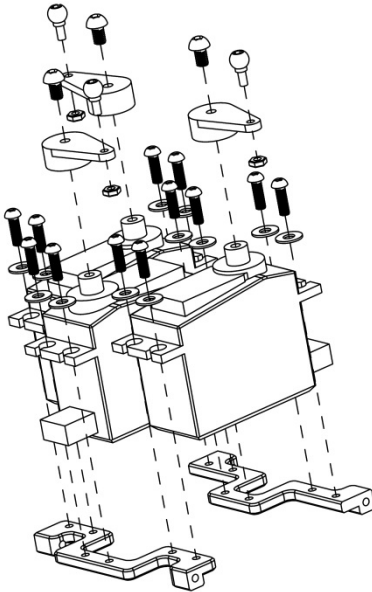
Install the servos as shown. Depending on your servos, you may have to use washers to achieve the correct installation height. Use only metal gear servos and metal servo horns! The multi-blade rotor develops enormous forces that can cause plastic horns to break.

After installing the servos, adjust the boom length from head center to head center (in mm) as follows:

1=81mm

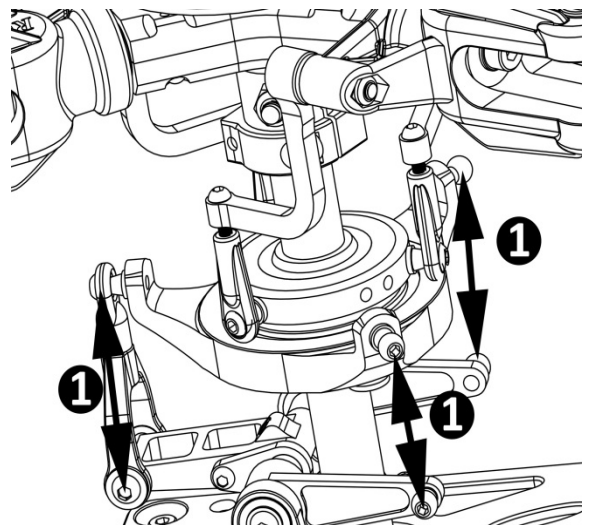
2=112mm

3=81mm



Step 5 – Mounting TS Poles

Adjust the lengths of the rods from ball head center
Ball head center as follows: **1=35mm**

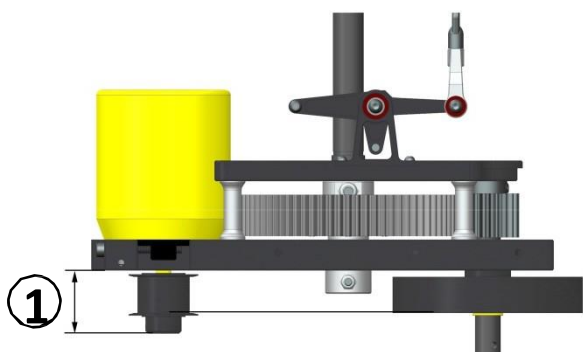
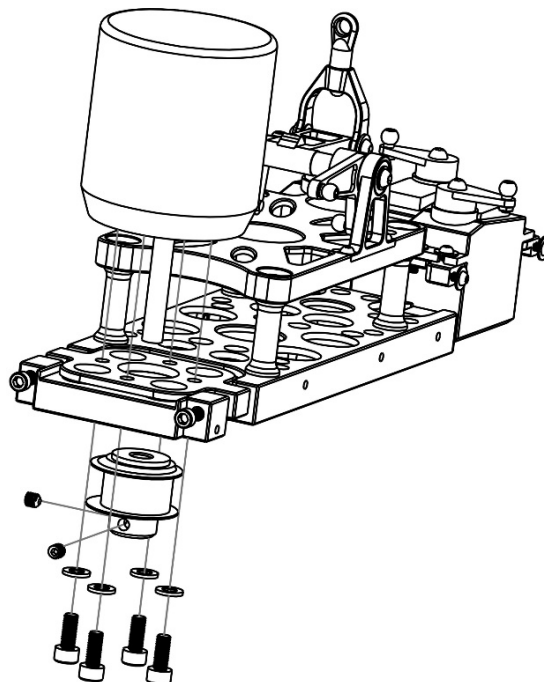
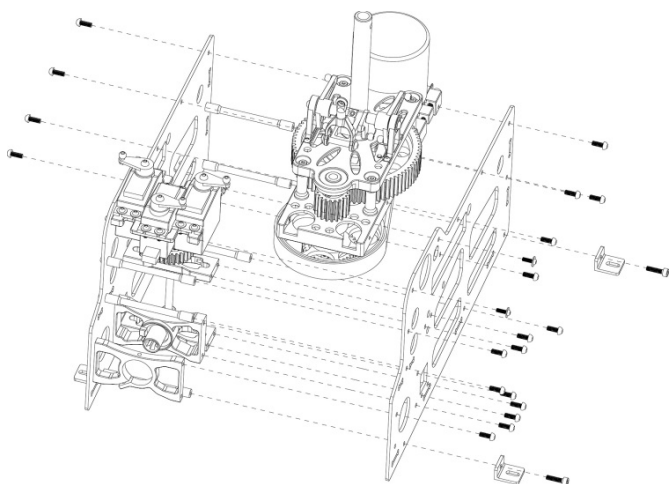


Step 6 – Motor and belt installation

In order to install the motor, you have to remove a side frame to gain access to the retaining screws and belt drive. Therefore, the frame screws are not equipped with threadlocker ex works. Make a flat on the motor shaft to ensure a tight fit between the shaft and the pulley.

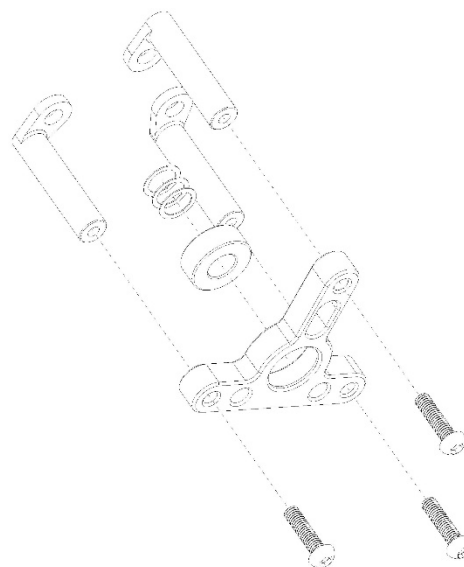
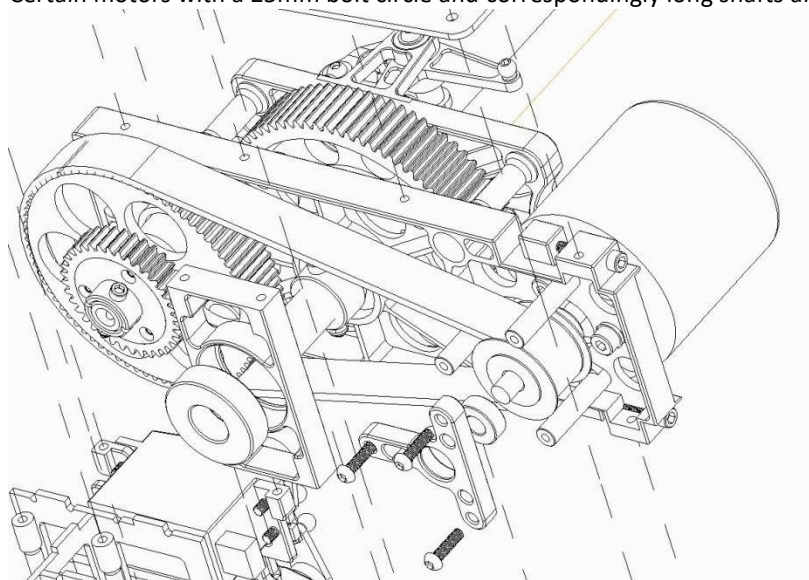
Mount the engine with washer and screws on the motor mount (70-00066). Make sure that the cables are pointing in the right direction for connection to the ESC. Then insert the pulley into the belt and slide it onto the motor. Before tightening the grub screws of the pulley, make sure that the pulley is installed in the correct position, distance (Fig. 1) is **24.5mm**.

Then tighten the belt and tighten the motor retaining screws. Then re-attach the side frames.



Motor Shaft Bearings

Certain motors with a 25mm bolt circle and correspondingly long shafts allow the use of the bearing block shown below.



Step 7 – Wiring and commissioning

The mechanics have to be completely wired and adjusted before they install it in the fuselage. Since the motor is operated on a 6S (22.2V) system, we recommend using a separate BEC system in conjunction with an additional 2S battery for additional operational safety.

The battery position of scale helicopters often makes it necessary to use longer supply lines than comparable 3D helicopters. Some high-voltage ESCs do not necessarily short-circuit the power unit's ground line to the control unit's ground line, so it may be necessary to make this connection externally. Due to the longer supply line, it is possible that interference signals can crosstalk to the control part if this ground connection is not present.

The swashplate is a 120 degree CCPM type, please adjust your gyro, remote control and servos thoroughly before installing them in the fuselage.

A 800KV motor shows the best flight characteristics at 80% throttle. If you want to use other motors, make sure that there is enough space for installation and that the motor shaft is long enough. Make sure that you do not tension the belt too much, the motor shaft can break in flight if the belt is too tight..

We recommend using the default settings for the gyro first. Make sure that you install the gyro in such a way that you can still easily readjust it. Several tuning flights may be required. Since the fuselage has more inertia in all axes than a 3D helicopter, a lower gyro gain values are to be expected. Some gyros show strange behavior on scale hulls, especially on the pitch axis, which is due to the unusually high mass inertia. A simple remedy is to move the ball heads closer to the center of the horn on all swashplate servos.

Before they put the model into operation for the first time, check the following points:

- Direction of travel of the servos (incl. throttle function) and travels.
- The gyro direction of action and the curve mixtures on the remote control.

-Travel of the collective pitch (linear path from -2/-3° to +9/+10°)

ATTENTION !

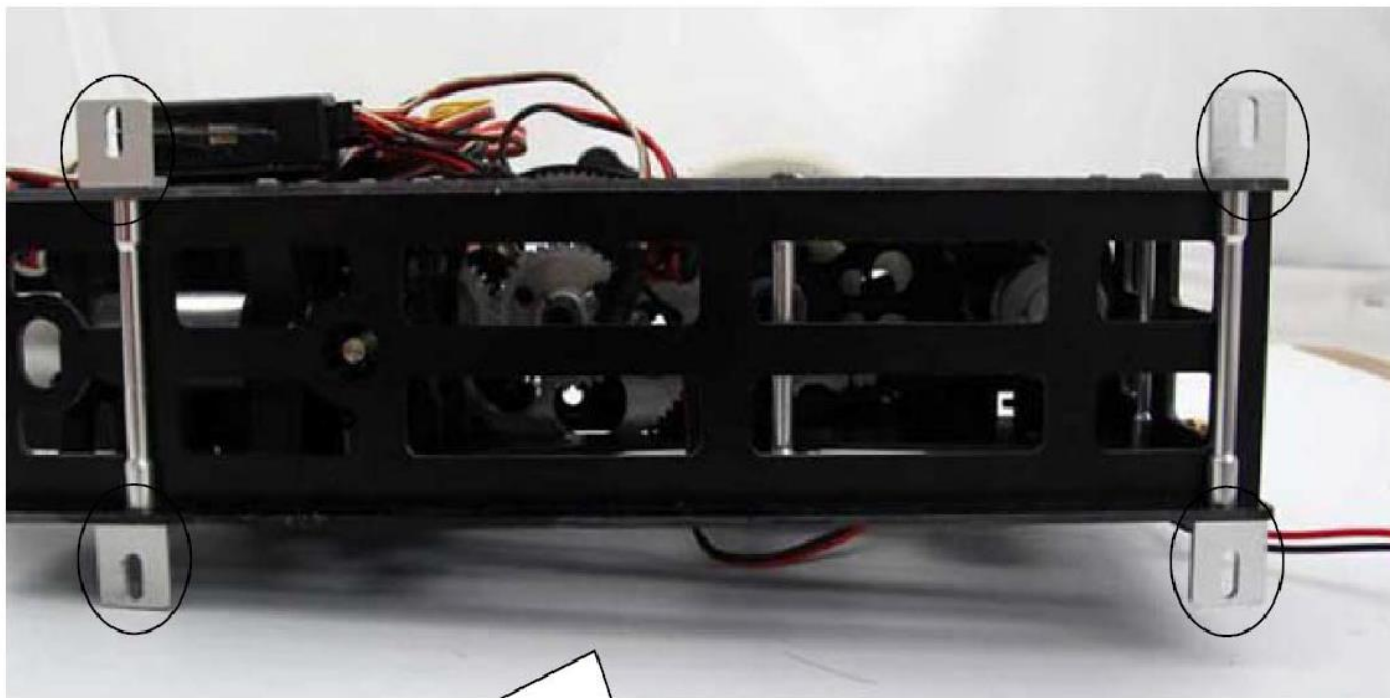
If they use a pitch gauge, make sure they measure parallel to the underside of the blade. Many pitch gauges indicate incorrect angles on semi-symmetrical blades, as they stretch

"crookedly" onto the rotor blade.!

The main rotor blades are asymmetrical. Try not to fly inverted. Do not use the blades on equipment with the rotor head rotation direction reversed.

- You can limit the servo travel, but not below 60% (mechanically on the servo horn); make sure that the travel paths are symmetrical.
- Move pitch, roll and collective pitch into the end deflections, rotate the rotor and make sure that the swashplate or rotor head does not jam.
- Use the auto-rotation switch on your remote control. Remember that it is very difficult to land a heavy model safely via autorotation!
- The first battery charges should be flown close to the ground, below 1m altitude, until you are sure that your model is working properly:
- Use your ears critically (!), listen for unusual noises and vibrations and get to the bottom of their cause. The spur gear with straight gears produces a certain background noise!
- Do not pay attention to people who urge you to hurry.
- Avoid hovering outside the ground effect (half the rotor diameter in altitude):
- Hovering consumes a lot of energy and they are completely dependent on the engine: unlike a real helicopter, they have only one propulsion system and a safe landing via autorotation is very difficult to achieve from hovering with a heavy scale model.

Step 8 – Installation of the mechanics



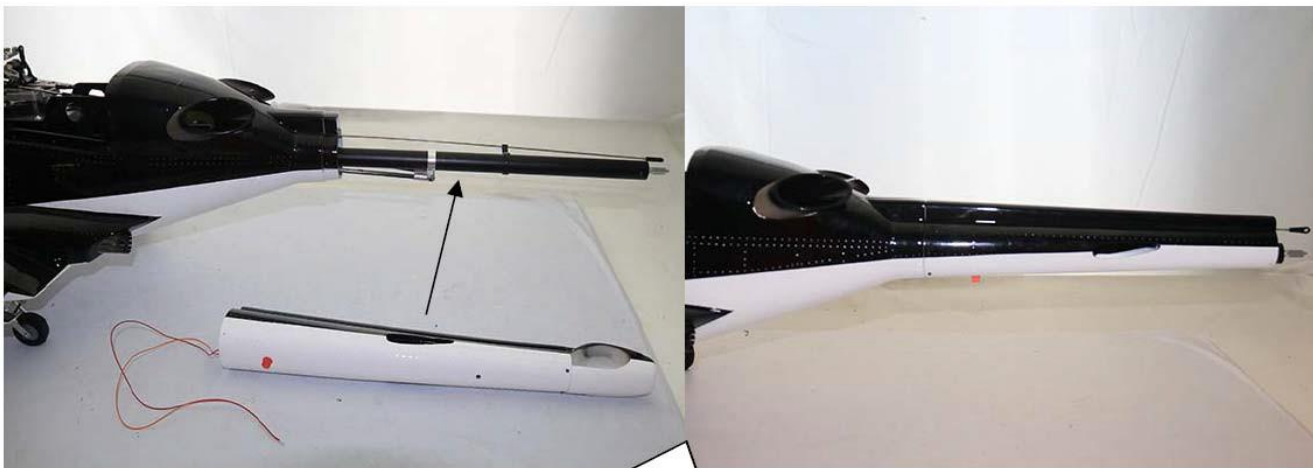
Mount the L brackets [40] to the mechanics as shown



Remove the tail rotor gearbox



Insert the mechanics into the fuselage as shown



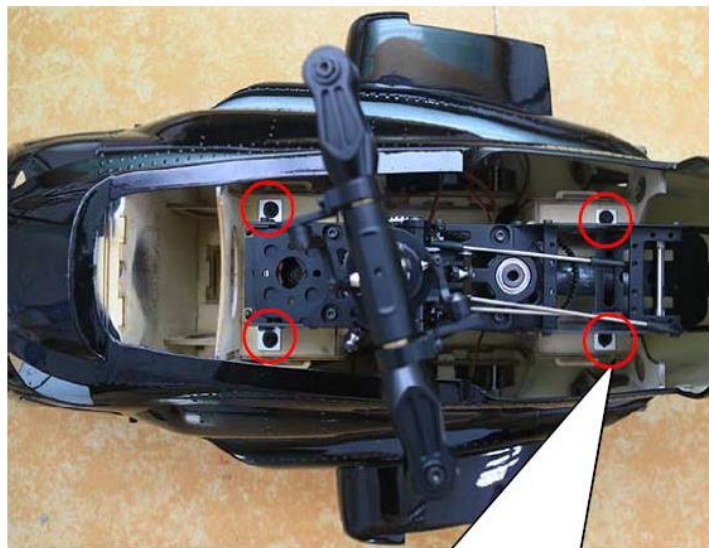
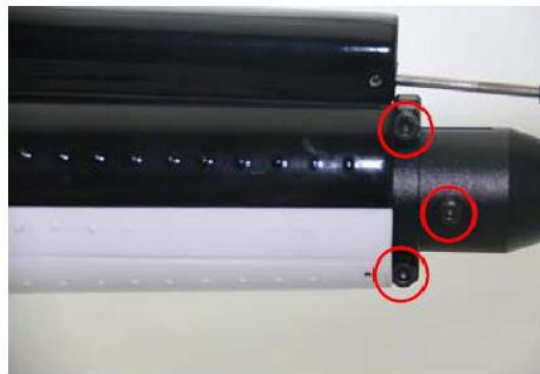
Test fit the tail section over the mechanics. Do not not screw it in place yet



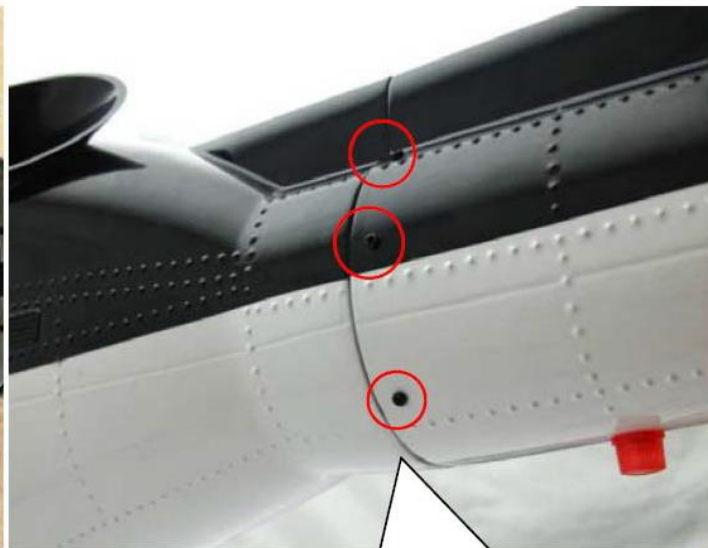
Insert the foam tail insert [74] as shown between the tail fuselage section and the tail boom tube



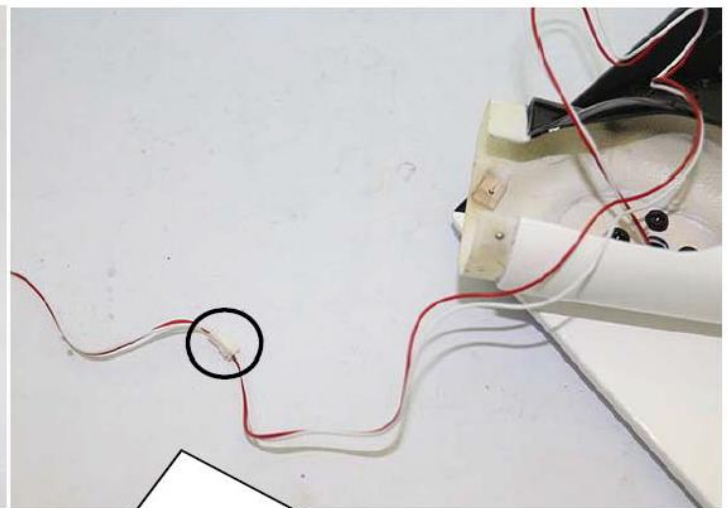
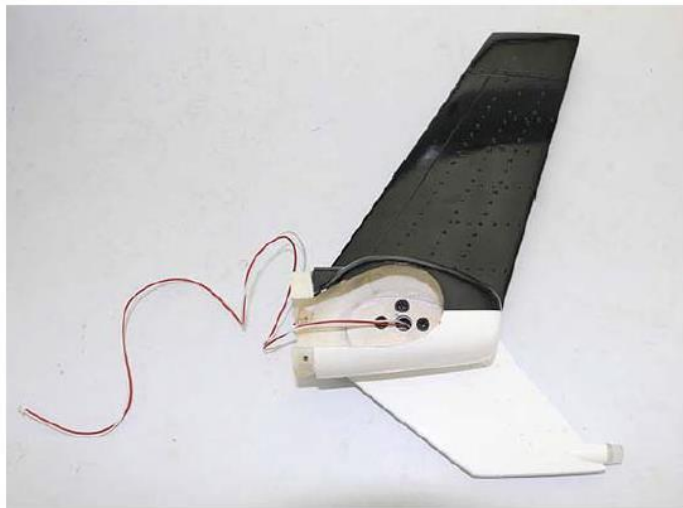
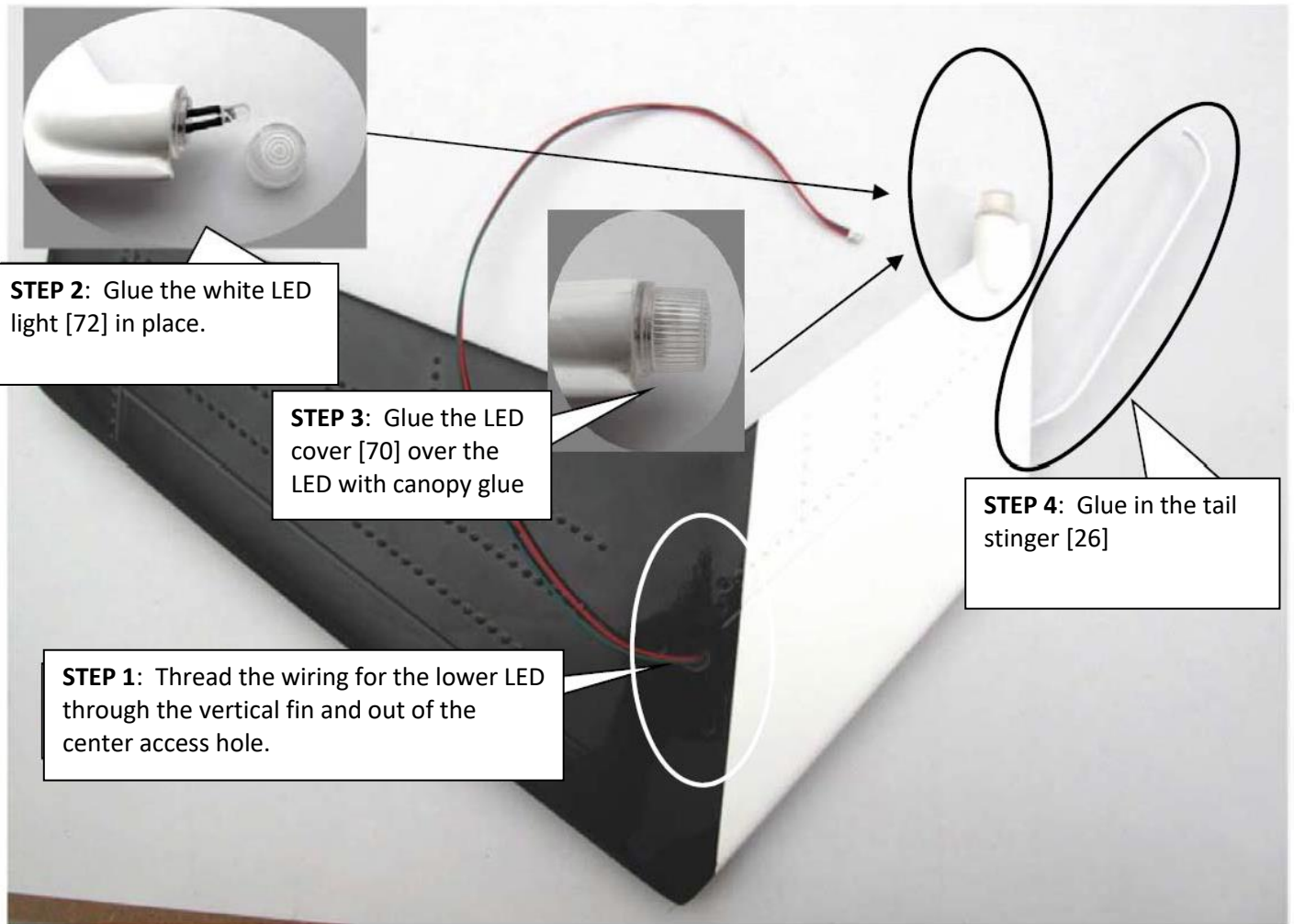
Fit the tail rotor gearbox and secure it to the tail boom. Ensure proper fit of the torque tube and pushrod.



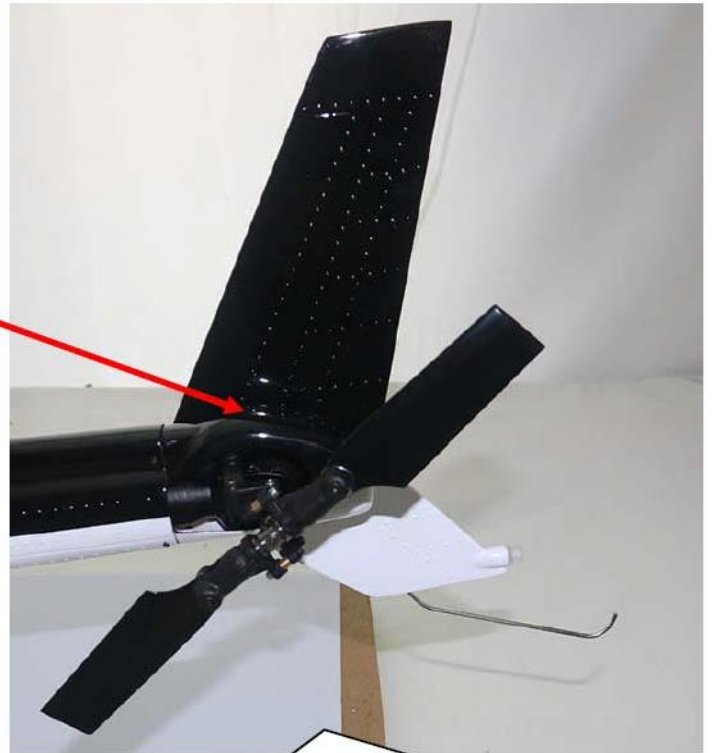
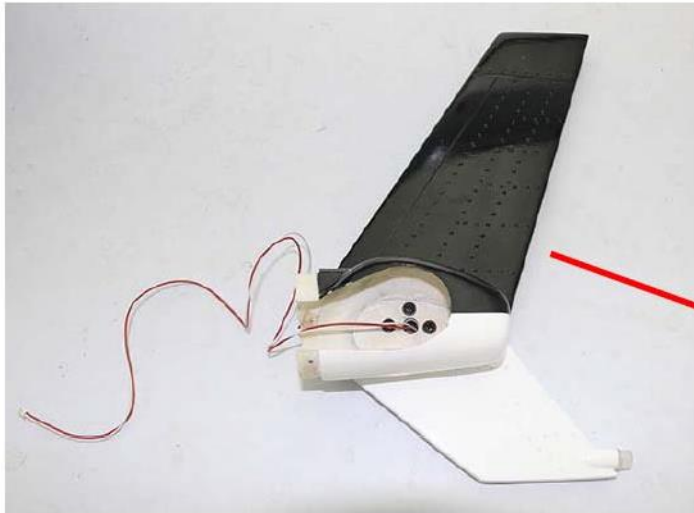
Secure the mechanics to the fuselage with 4 x M3x14 screws [42] and M3 washers [41]



Secure the tail section to the forward fuselage with 6x M2x6 screws [43]



Attach the vertical fins to the tail gearbox cover with 3 A3X12 screws [48]. Attach an extension [68] to the tail LED lead



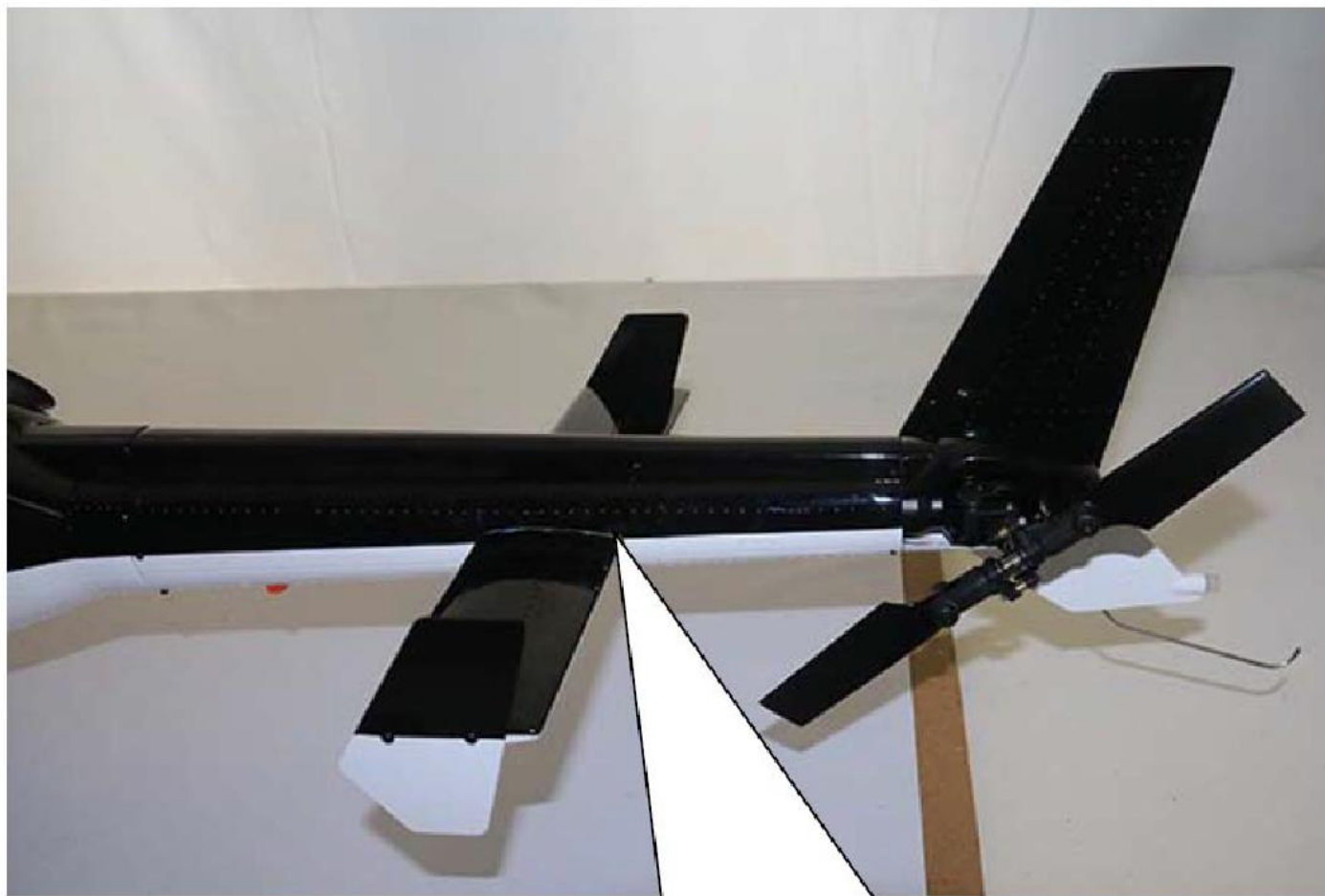
Mount the vertical fin assembly on the tail boom



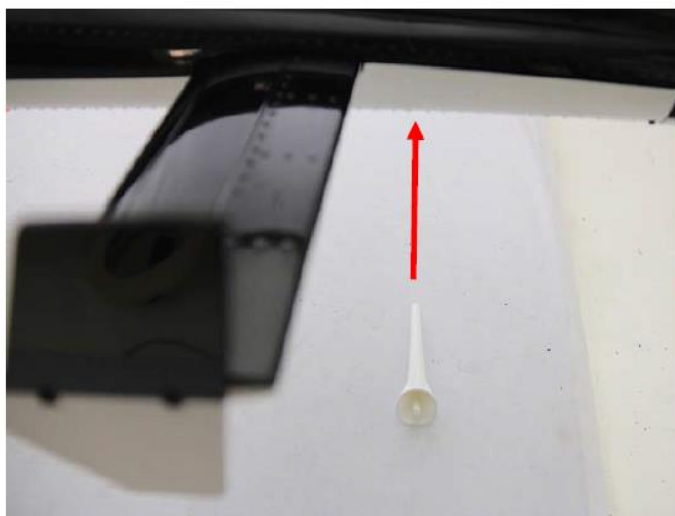
Glue the slats [29] to the leading edge of the horizontal stabilizers [17] as shown



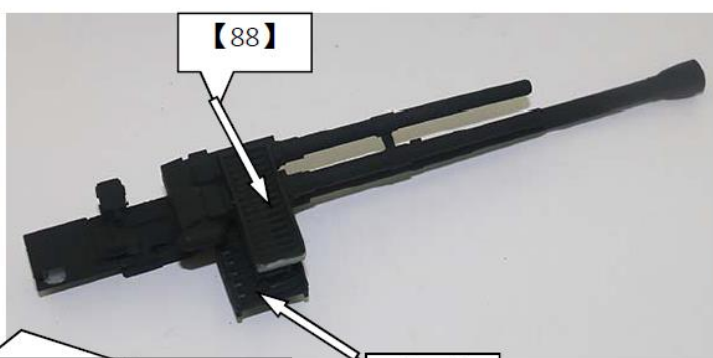
Mount the endplates [19] to outboard edge of the horizontal stabilizer [17] with with 2x A2x8 screws [47]



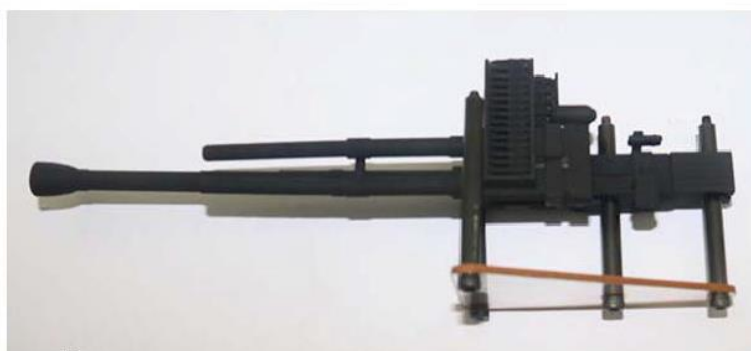
Glue the horizontal stabilizers to the fuselage. Creating a jig to hold the stabilizers level while the glue dries is highly recommended.



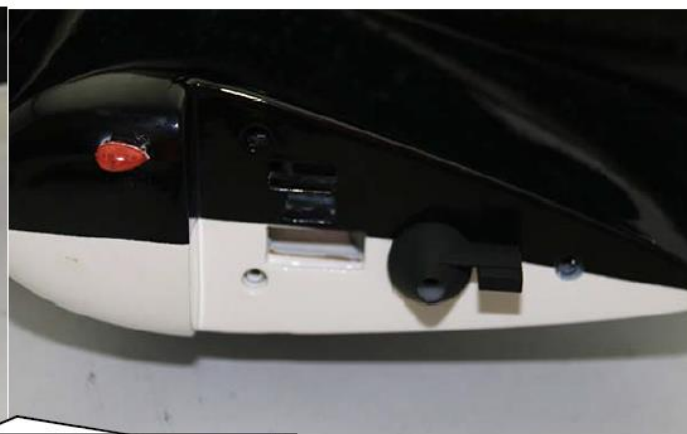
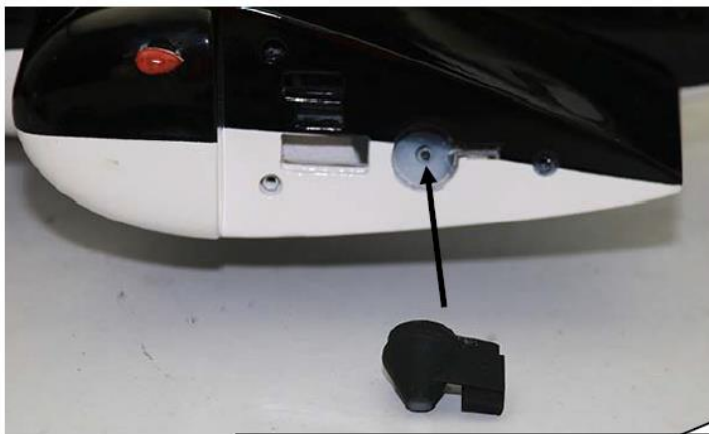
Glue the antenna [31] as shown



Assemble both cannons with parts [86] [87] [88] as shown



Add parts [21] [33] [55] to the cannon assembly as shown for both units



Install the cannon hardpoint [89] to the fuselage as shown

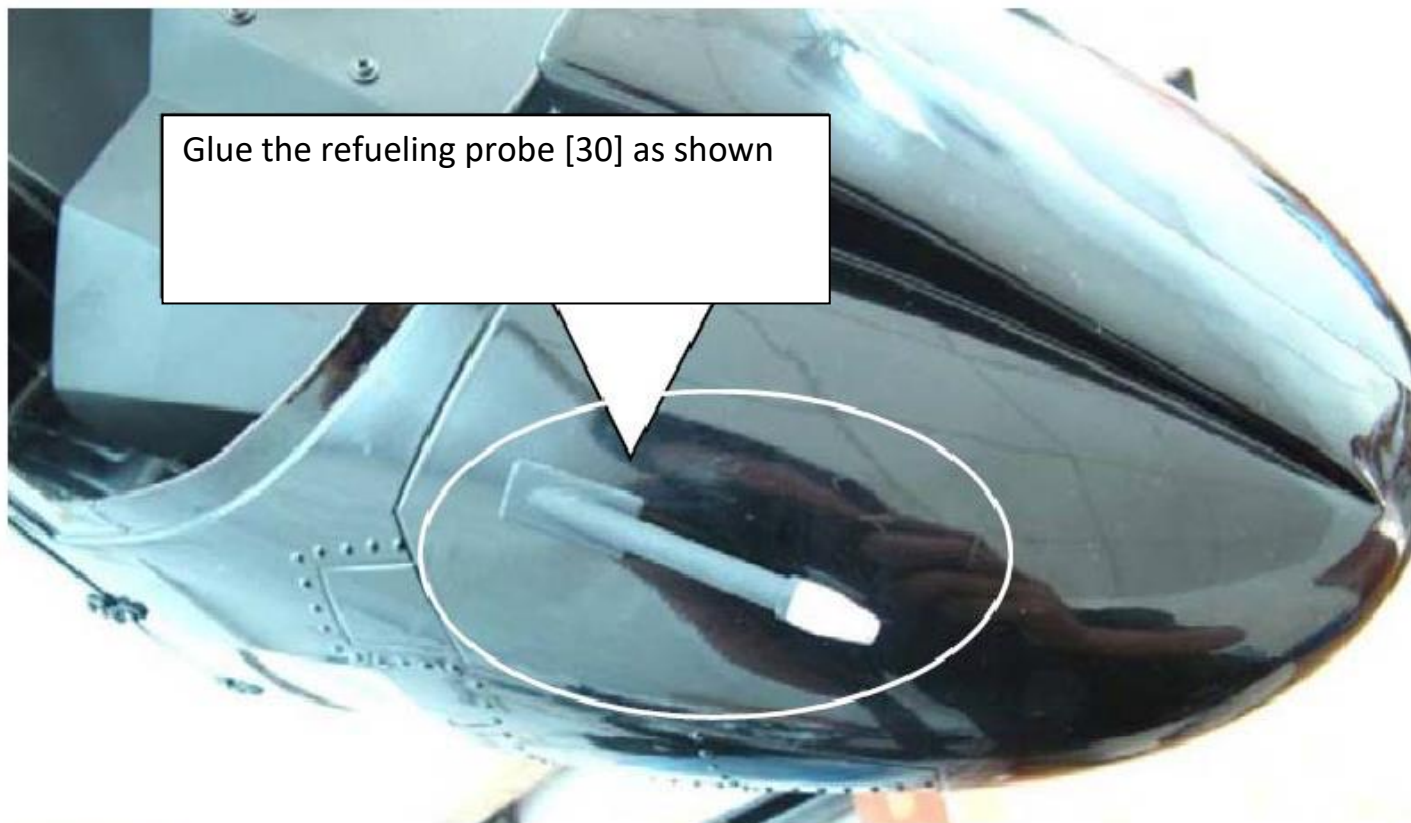


Attach the cannon assembly to the fuselage as shown

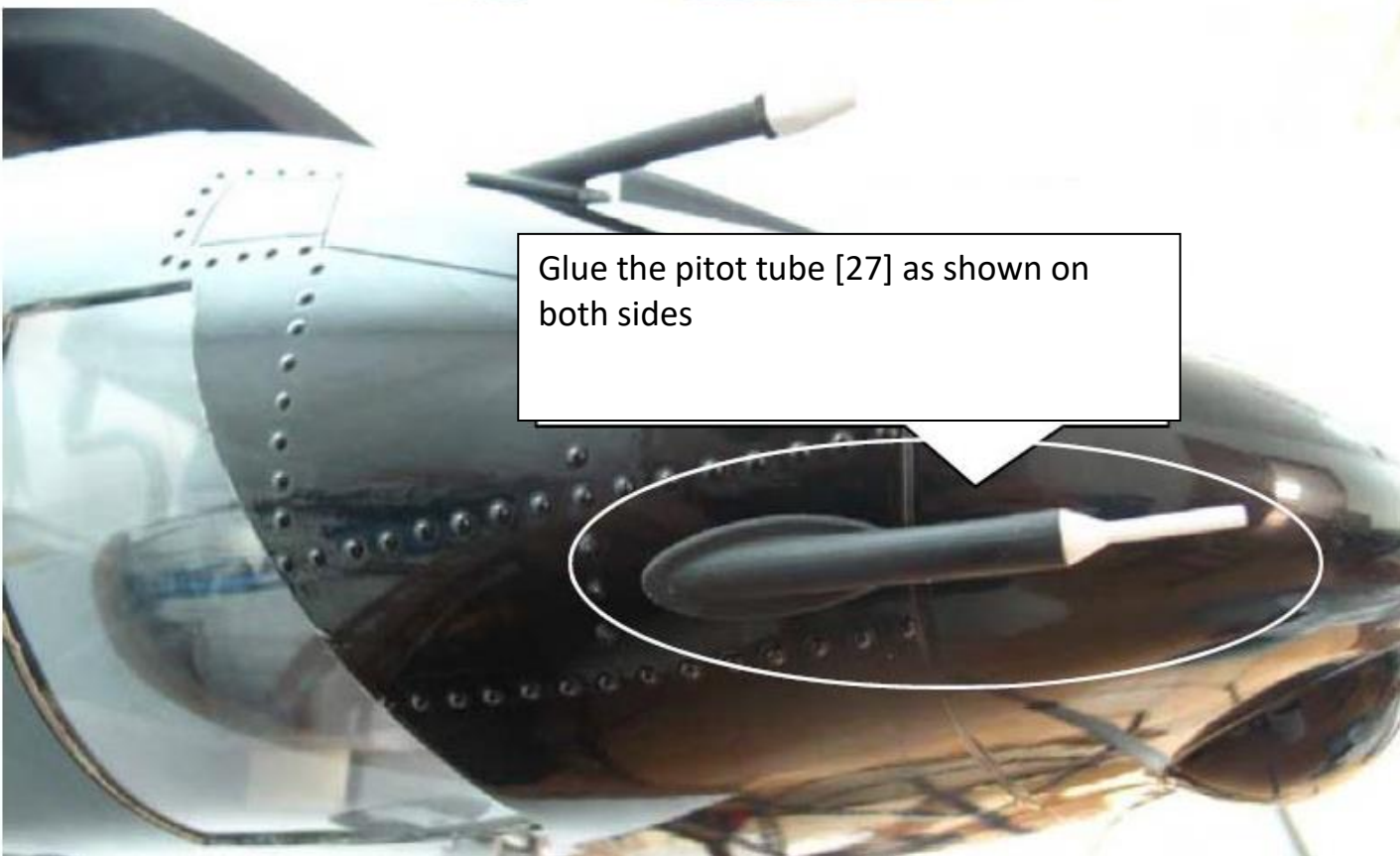


Glue the gun compartment cover in place as shown

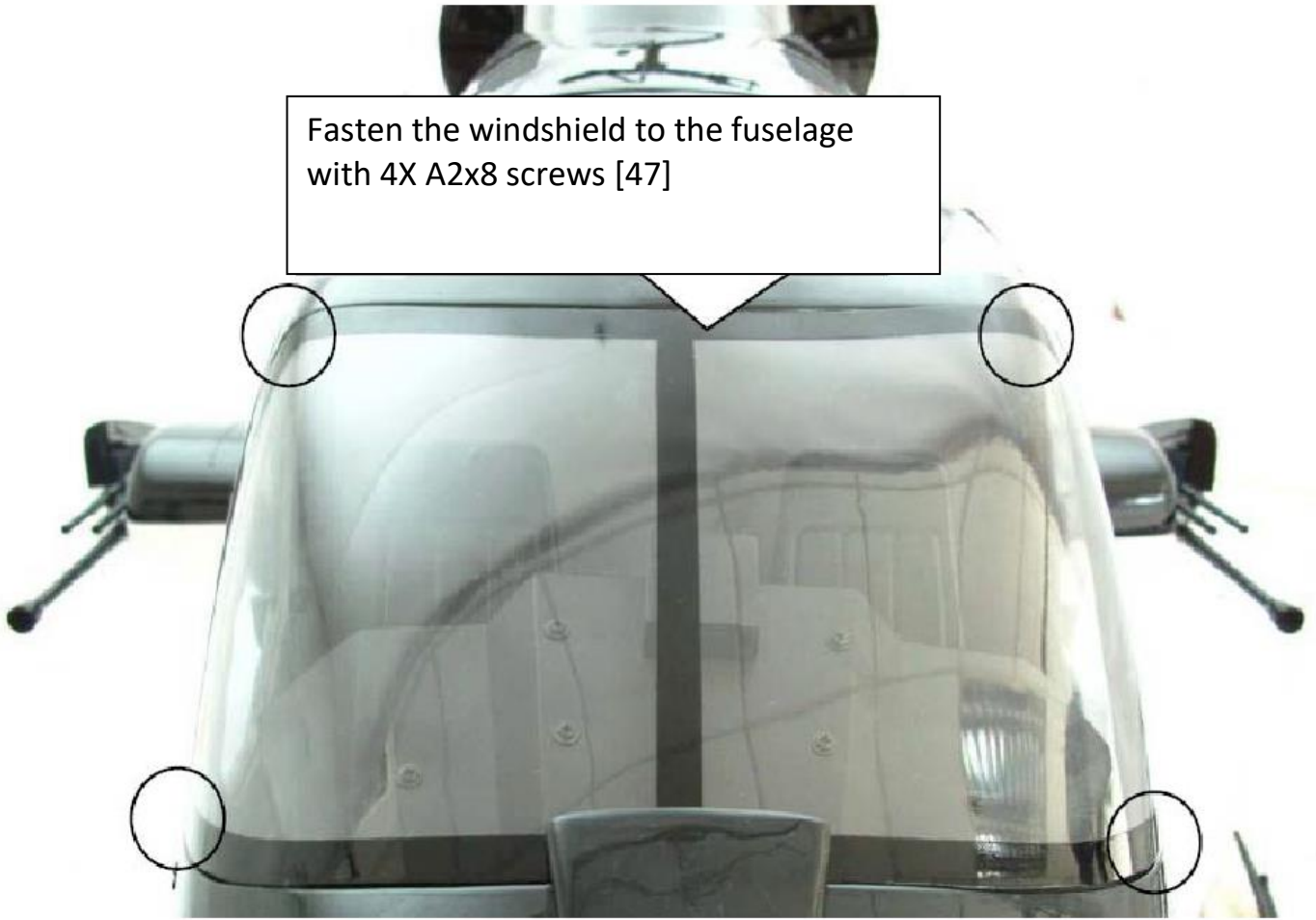
Glue the refueling probe [30] as shown



Glue the pitot tube [27] as shown on both sides



Fasten the windshield to the fuselage
with 4X A2x8 screws [47]



Glue the windshield wipers [28] as
shown



Step 11 – First Flight

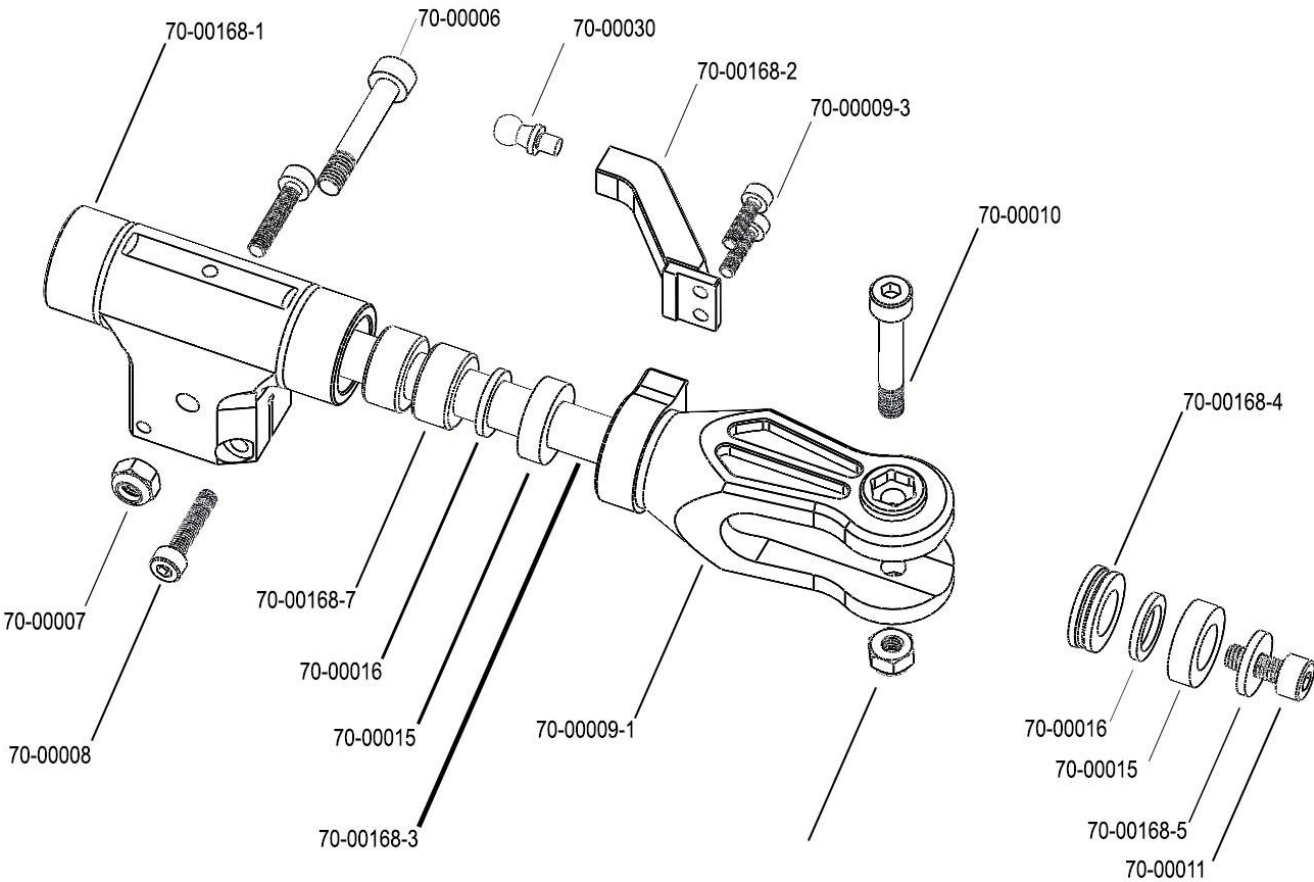
Prior to first flight, conduct a comprehensive preflight inspection. Verify all flight controls move in the correct directions, and that the flight controller corrects appropriately. Verify operation of the retractable landing gear, and that full control throws have no interference. Check that any radio failsafe modes are set in a safe condition, and perform a radio range check of all aircraft orientations. Verify aircraft wiring is secure and that blades have been balanced appropriately.

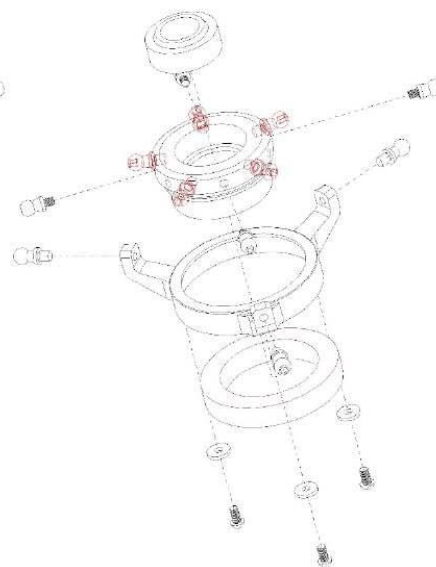
For the first flight, start off low in ground effect and tune the flight control system until the aircraft feels comfortable in a hover. For your first entry into forward flight, apply forward cyclic from a hover and increase speed until the model begins to gain altitude. It is recommended to keep your speed on these first test flights. This will give you enough energy for a successful autorotation in case of a component failure. Throughout the flight, listen to the helicopter. If you hear an abrupt change in frequency or pitch of the sound, land immediately and investigate the source of the noise. To land, descend (about 45°) into the wind towards the landing zone, and execute a smooth flare until it is on the ground. If there is an indication of a potential failure or strange noise, it is recommended to conduct a running landing and avoid high power flight conditions like hovering.

Advice from the manufacturer:

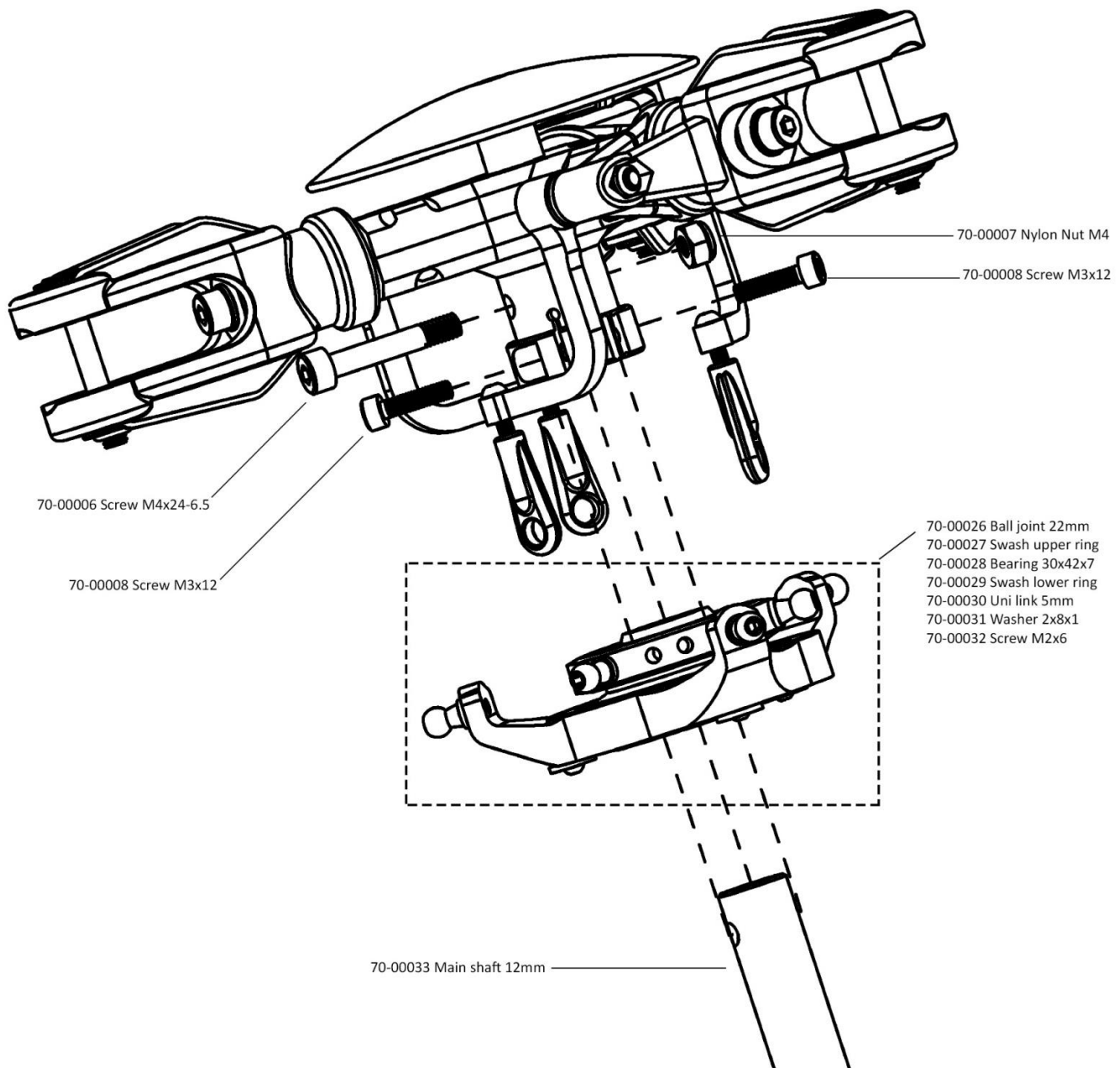
Please be realistic when assessing your flying experience. A scale helicopter is heavy and much more sluggish than a 3D helicopter.

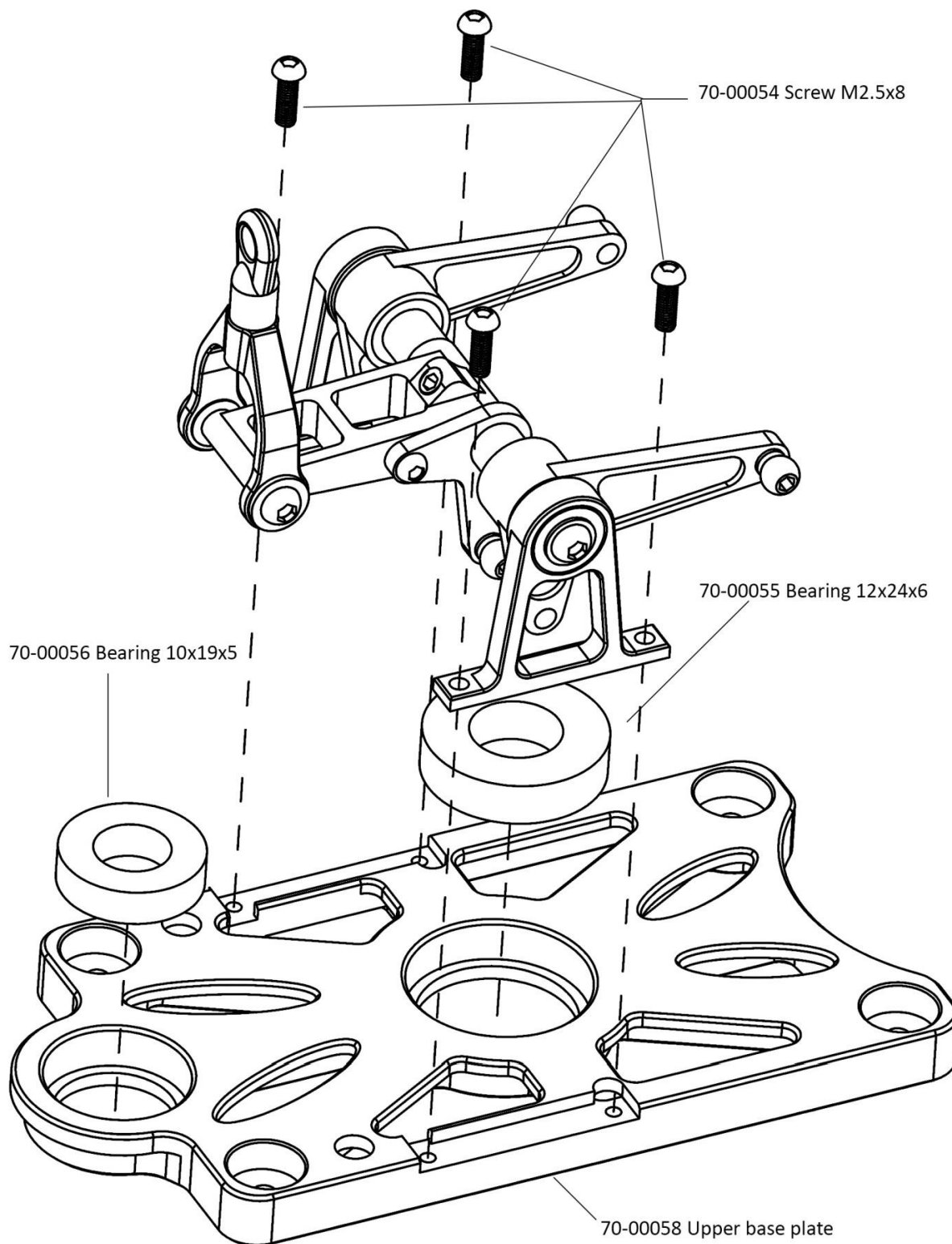
Appendix A – Exploded Parts Diagrams

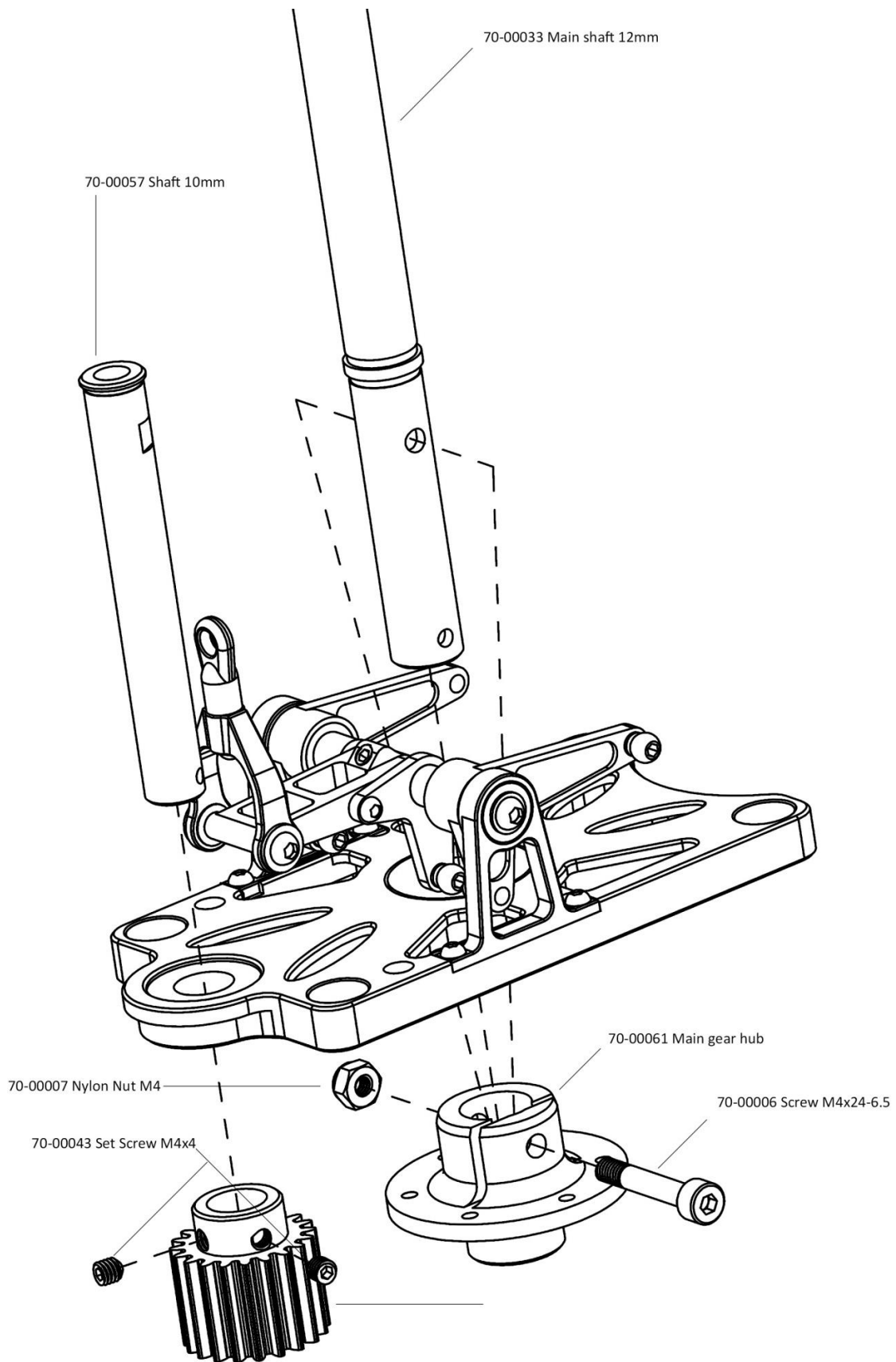


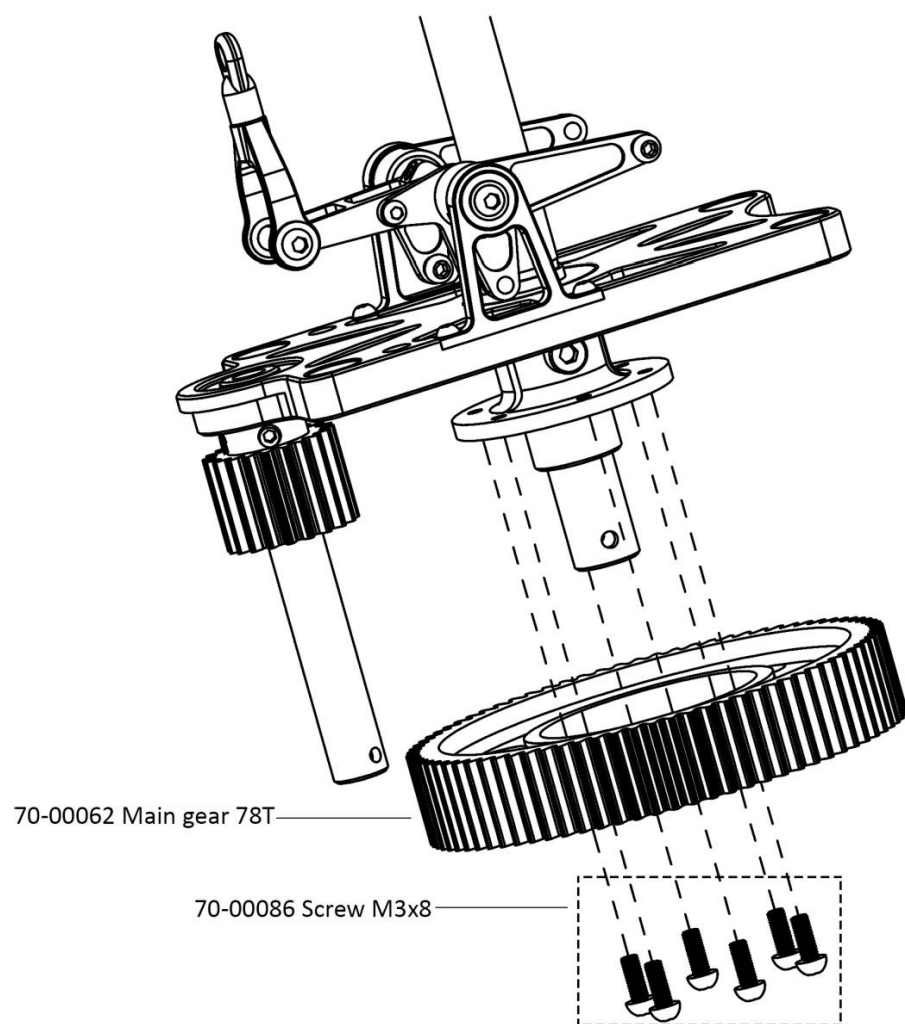


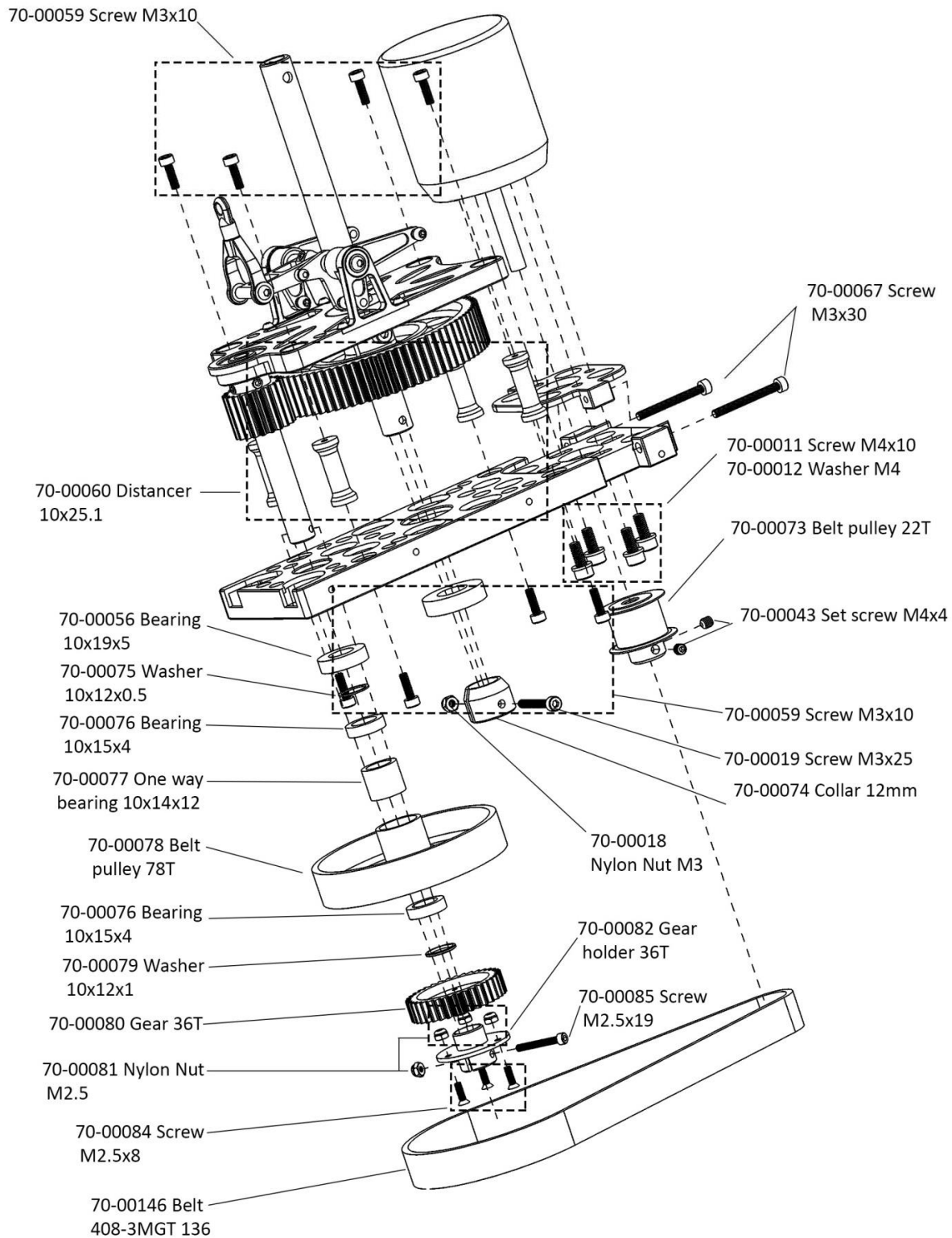
5 blade swash plate

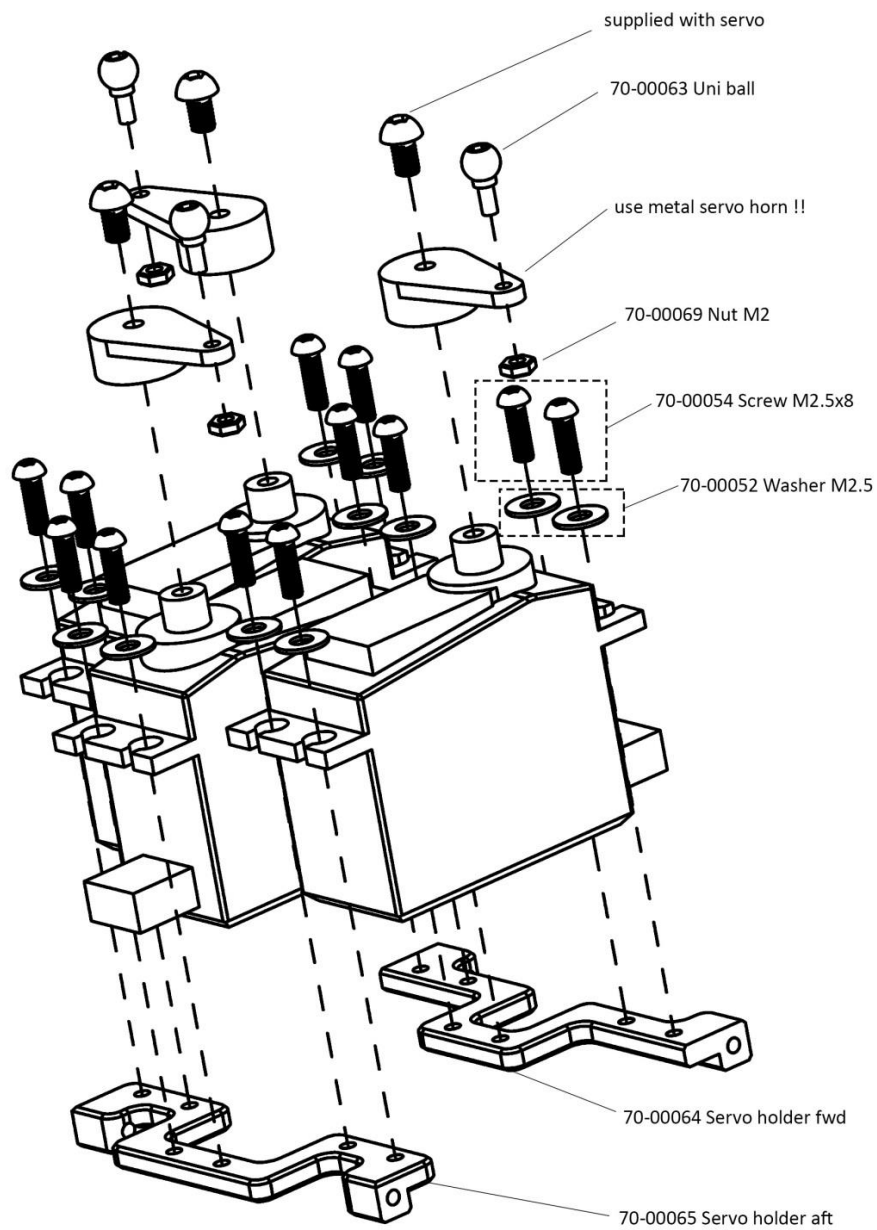


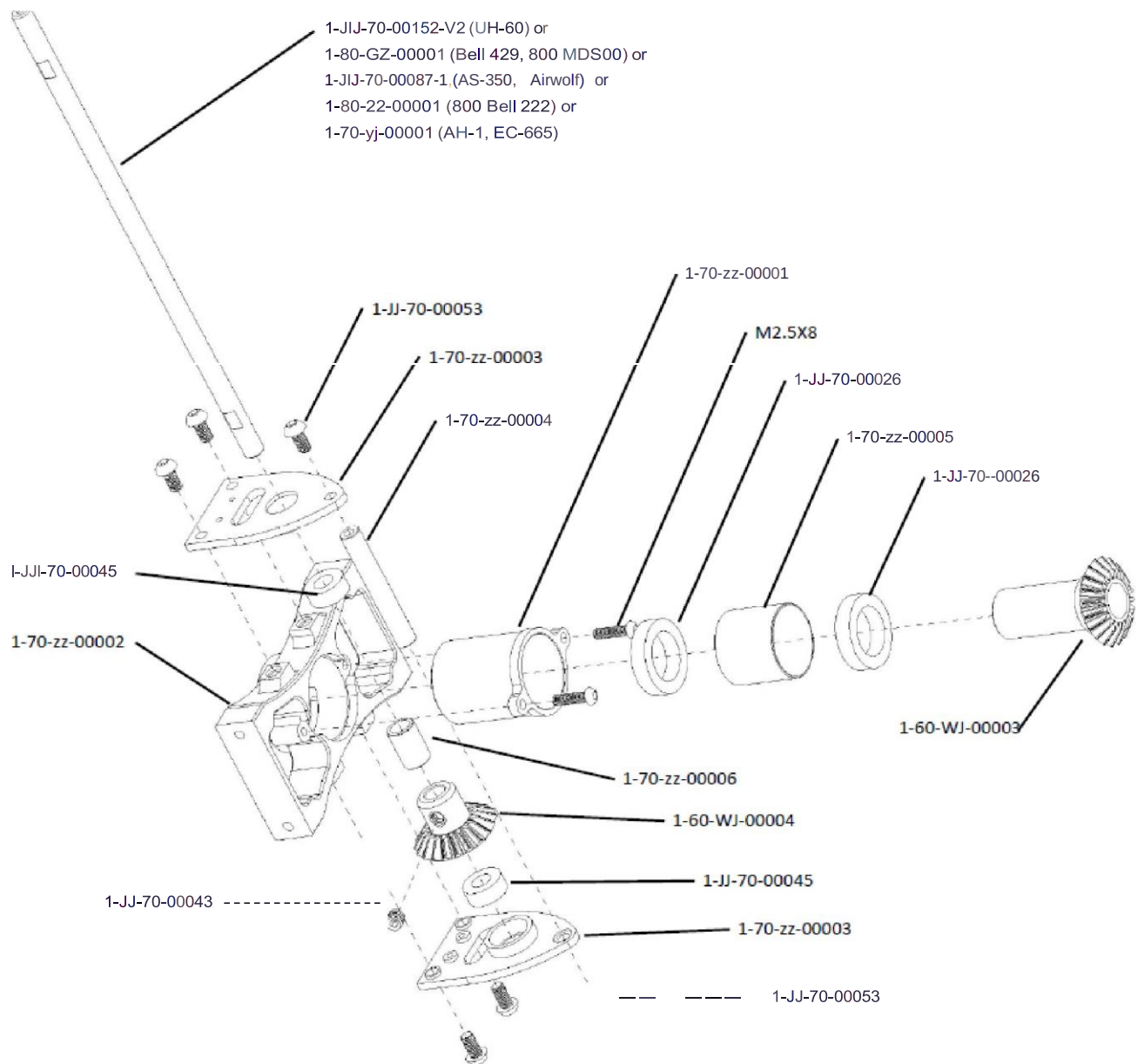




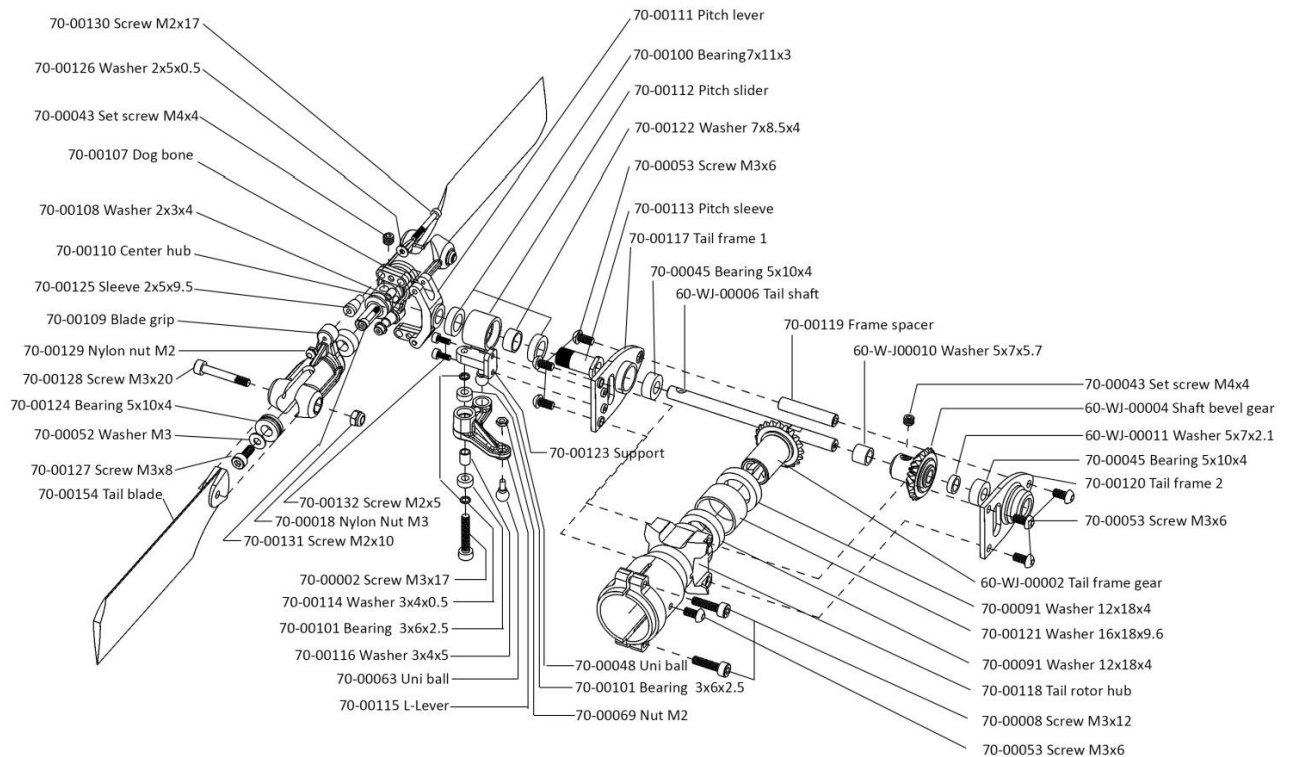
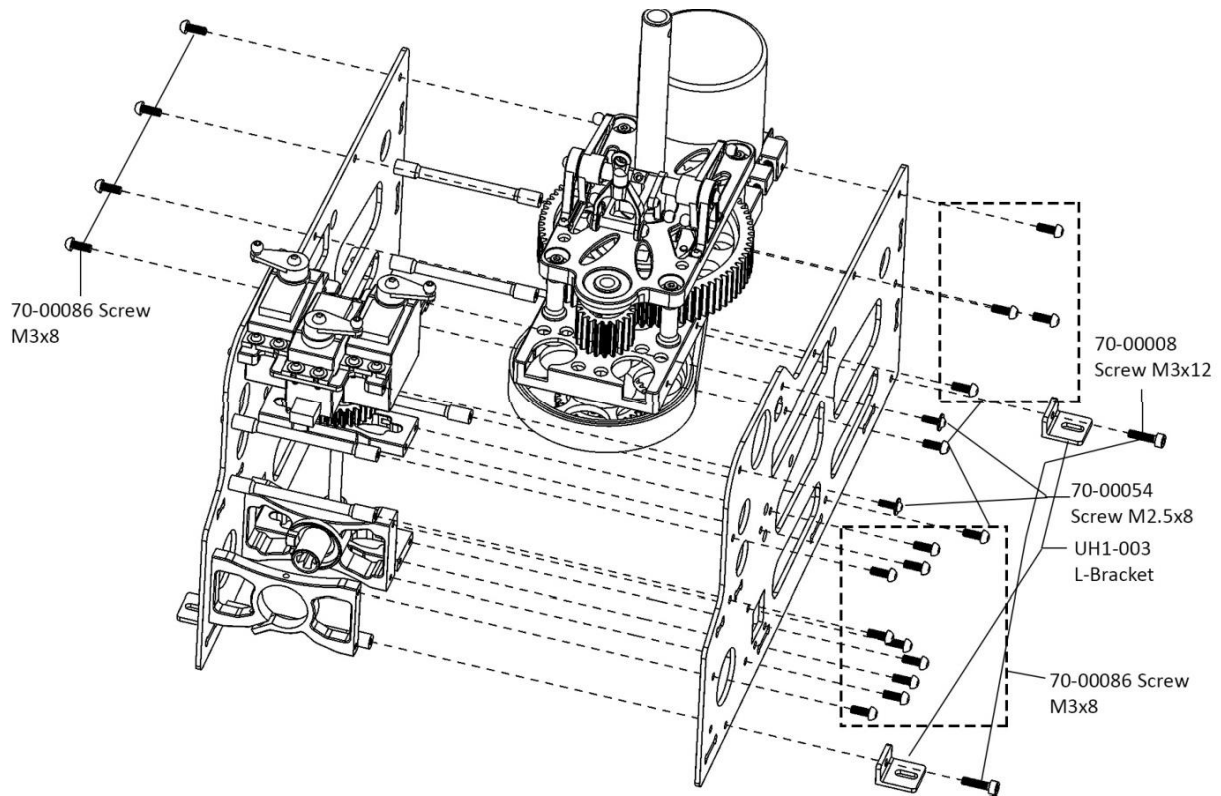




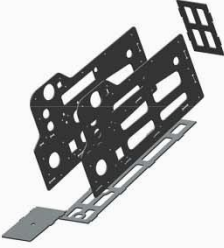
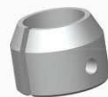


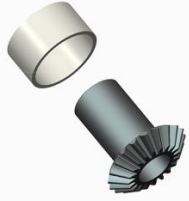


Note: To ensure proper tail rotor rotation and functionality, the input bevel gear (1-60-WJ-00004), and sleeve (1-70-n-00006) might need to be swapped around,



Appendix B – Parts List

RCH-70-001 	RCH-70-002 	RCH-70-003 	RCH-70-004 
RCH-70-005 	RCH-70-006 	RCH-70-007 	RCH-70-008 
RCH-70-009 	RCH-70-010 	RCH-70-011 	RCH-70-012 
RCH-70-013 	RCH-70-014 	RCH-70-015 	RCH-70-016 
RCH-70-017 	RCH-70-018 	RCH-70-019 	RCH-70-020 
RCH-70-021 	RCH-70-022 	RCH-70-023 	RCH-70-024 

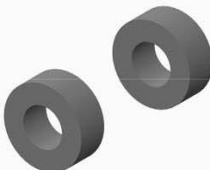
RCH-70-025 	RCH-70-026 	RCH-70-027 	RCH-70-028 
RCH-70-029 	RCH-70-030 	RCH-70-031 	RCH-70-032 
RCH-70-033 	RCH-70-034 	RCH-70-035 	RCH-70-036 
RCH-70-037 	RCH-70-038 	RCH-70-039 	RCH-70-040 
RCH-70-041 	RCH-70-042 	RCH-70-043 	RCH-70-044 
RCH-70-045 	RCH-70-046 	RCH-70-047 	RCH-70-048 

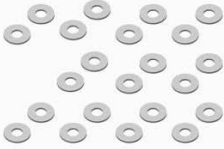
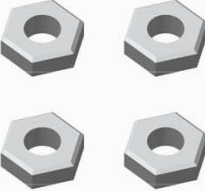




RCH-70-072



RCH-70-073	RCH-70-074	RCH-70-075	RCH-70-076
			
RCH-70-077	RCH-70-078	RCH-70-079	RCH-70-080
			
RCH-70-081	RCH-70-082	RCH-70-083	RCH-70-084
			
RCH-70-085	RCH-70-086	RCH-70-086	RCH-70-088
			
RCH-70-089	RCH-70-090	RCH-70-091	RCH-70-092
			
RCH-70-093	RCH-70-094	RCH-70-095	RCH-70-096
			

RCH-70-097	RCH-70-098	RCH-70-099	RCH-70-100
			
RCH-70-101	RCH-70-102	RCH-70-103	RCH-70-104
			
RCH-70-105	RCH-70-106	RCH-70-107	RCH-70-108
			
RCH-70-109	RCH-70-110	RCH-70-111	
			

Appendix C – Ersatzteilliste

RCH-70-001	1-JJ-70-00147	Sideframes	Seitenrahmen
	1-JJ-70-00148	Aft frame	hintere Platte
	1-JJ-70-00149	Bottom frame	Bodenplatte
	1-JJ-70-00150	Fwd frame	vordere Platte
RCH-70-002	1-JJ-70-00099	Distancer 6x62	Distanzstück 6x62
	11-600UH1-003	L-Bracket	L-Halter
RCH-70-003	1-JJ-70-00152	Landing Gear	Fahrwerk
RCH-70-004	1-JJ-70-00153	Footrest	Trittleiste
RCH-70-005	1-JJ-70-00058	Upper base plate	Obere Basisplatte
RCH-70-006	1-JJ-70-00071	Lower base plate	Untere Basisplatte
RCH-70-007	1-JJ-70-00066	Motor holder	Motorhalter
	1-JJ-70-00067	Screw M3x30	Schraube M3x30
RCH-70-008	1-JJ-70-00062	Main Gear 78T	Hauptzahnrad 78T
RCH-70-009	1-JJ-70-00061	Main gear hub	Hauptzahnradaufnahme
RCH-70-010	1-JJ-70-00063	Spur Gear 20T	Ritzel 20T
RCH-70-011	1-JJ-70-00075	Washer 10x12x0.5	Beilagschreibe 10x12x0.5
	1-JJ-70-00076	Bearing 10x15x5	Kugellager 10x15x4
	1-JJ-70-00077	One way bearing 10x14x12	Kugellager 10x14x12
	1-JJ-70-00078	Belt pulley 78T	Riemenrad 78T
	1-JJ-70-00079	Washer 10x12x1	Beilagscheibe 10x12x1
RCH-70-012	1-JJ-70-00080	Gear 1M 36T	Zahnrad 1M 36T
RCH-70-013	1-JJ-70-00082	Gear hub 36T	Zahnradaufnahme 36T
RCH-70-014	1-JJ-70-00083	Gear holder 30T	Zahnradaufnahme 30T
RCH-70-015	1-JJ-70-00073	Belt pinion 22T	Riemenscheibe 22T
RCH-70-016	1-JJ-70-00037	Ball link 5mm	Kugelkopfraumen 5mm
	1-JJ-70-00038	Lever 1	Hebel 1
	1-JJ-70-00039	Flanged bearing 3x7x3	Kugellager Flansch 3x7x3
RCH-70-017	1-JJ-70-00060	Distancer 10x25.1	Abstandshalter 10x25.1
RCH-70-018	1-JJ-70-00074	Collar 12mm	
RCH-70-019	1-JJ-70-00033	Main Shaft 12mm	Hauptwelle 12mm
RCH-70-020	1-JJ-70-00057	Shaft 10x76.1	Welle 10x76.1
RCH-70-021	1-JJ-70-00026	Ball joint 22mm	Kugelgelenk 22mm
	1-JJ-70-00027	Swash upper ring	Taumelscheibe Oberteil
	1-JJ-70-00028	Bearing 30x42x7	Kugellager 30x42x7
	1-JJ-70-00029	Swash lower ring	Taumelscheibe Unterteil
	1-JJ-70-00030	Ball head	Kugelkopf
	1-JJ-70-00031	Washer 2x8x1	Beilagscheibe 2x8x1
	1-JJ-70-00032	Screw M2x6	Schraube M2x6
RCH-70-022	1-JJ-70-00003	Rotorhead top	Rotorkopf oben
	1-JJ-70-00004	Rotorhead bottom	Rotorkopf unten
RCH-70-023	1-JJ-70-00001	Rotorhead Cap	Rotorkopfkappe
RCH-70-024	1-JJ-70-00017	Grip Spindle	Blattlagerwelle

RCH-70-025	1-JJ-70-00020	Washer 3x9x1.5	Beilagscheibe 3x9x1.5
	1-JJ-70-00021	Bearing 3x7x3	Kugellager 3x7x3
	1-JJ-70-00022	Washer 3x4.5x1.1	Beilagscheibe 3x4.5x1.1
	1-JJ-70-00023	L-Lever	L-Hebel
	1-JJ-70-00019	Screw M3x25	Schraube M3x25
	1-JJ-70-00018	Self Locking Nut M3	Stoppmutter M3
RCH-70-026	1-JJ-70-00024	Screw M2.5x16	Schraube M2.5x16
	1-JJ-70-00025	Ball link 5mm	Kugelkopf 5mm
RCH-70-027	1-JJ-70-00012	Washer 4x8x1	Beilagscheibe 4x8x1
	1-JJ-70-00014	Washer 8x14x0.5	Beilagscheibe 8x14x0.5
	1-JJ-70-00016	Washer 8x11.5x1.3	Beilagscheibe 8x11.5x1.3
RCH-70-028	1-JJ-70-00009	Main Blade Grip	Hauptrotorblatthalter
RCH-70-029	1-JJ-70-00034	Lever 23mm	Gestänge 23mm
	1-JJ-70-00035	Lever 67mm	Gestänge 67mm
	1-JJ-70-00036	Gestänge 98mm	Gestänge 98mm
RCH-70-030	1-JJ-70-00046	Right servo lever	Rechter Servohebel
	1-JJ-70-00047	Left servo lever	Linker Servohebel
RCH-70-031	1-JJ-70-00050	Bearing Block	Lagerbock
RCH-70-032	1-JJ-70-00041	Lever 2	Hebel 2
RCH-70-033	1-JJ-70-00042	Lever 3	Hebel 3
RCH-70-034	1-JJ-70-00044	Bushing 5x7x7	Buchse 5x7x7
	1-JJ-70-00049	Washer 5x7x1.5	Beilagschreibe 5x7x1.5
	1-JJ-70-00051	Shaft 5x62	Welle 5x62
RCH-70-035	1-JJ-70-00064	Servo holder fwd	Servohalter vorne
	1-JJ-70-00065	Servo holder aft	Servohalter hinten
RCH-70-036	1-JJ-70-00068	Uniball 5mm	Uniball 5mm
RCH-70-037	1-JJ-70-00088	Bearing block	Lagerbock
RCH-70-038	1-JJ-70-00087	Tail shaft 5x83	Welle 5x83
	1-60-WJ-00003	Tube bevel gear	Kegelrad
	1-JJ-70-00092	Washer 15x18x1	Beilagscheibe 15x18x1
RCH-70-039	1-JJ-70-00093	Tail boom holder fwd	Heckrohrhalter vorne
	1-JJ-70-00094	Tail boom holder aft	Heckrohrhalter hinten
RCH-70-040	1-JJ-70-00095	Tail boom	Heckrohr
RCH-70-041	1-JJ-70-00096	Tail boom shaft	Heckrohrwelle
	12-02-02006	Bearing holder	Kugellagerhalter
	11-600jRCH-70-002	X Junction	X-Verbinder
RCH-70-042	1-JJ-70-00097	Tail servo frame	Heckservorahmen
	1-JJ-70-00098	Tail servo clamp	Heckservoklammer
RCH-70-043	1-JJ-70-00102	Gear 1M 30T	Zahnrad 1M30T
RCH-70-044	1-JJ-70-00103	Tail pushrod 702mm	Gestänge 702mm
RCH-70-045	1-JJ-70-00104	Tail support holder	Strebenaufnahme
	1-JJ-70-00105	Bolt 1.5x7.8	Bolzen 1.5x7.8
	1-JJ-70-00106	Tail support rod	Heckstrebe
RCH-70-046	11-600UH1-007	Tail support clamp	Heckstrebenklammer

RCH-70-047	1-60-WJ-00010	Washer 5x7x5.7	Hülse 5x7x5.7
	1-60-WJ-00011	Washer 5x7x2.1	Beilagscheibe 5x7x2.1
	1-60-WJ-00006	Tail shaft 2 blade	Heckwelle 2 Blatt
RCH-70-048	1-JJ-70-00121	Washer 16x18x9.6	Hülse 16x18x9.6
	1-60-WJ-00002	Tail frame gear	Kegelrad Heck
RCH-70-049	1-JJ-70-00110	Center hub	Heckrotorkopf
RCH-70-050	1-JJ-70-00111	Pitch lever	Pitchhebel
	1-JJ-70-00112	Pitch slider	Pitchschieber
	1-JJ-70-00113	Pitch sleeve	Pitchhülse
	1-JJ-70-00122	Washer 7x8.5x4	Hülse 7x8.5x4
RCH-70-051	1-JJ-70-00107	Dog bone	Hundeknochen
	1-JJ-70-00108	Washer 2x3x4	Hülse 2x3x4
	1-JJ-70-00125	Sleeve 2x5x9.5	Hülse 2x5x9.5
	1-JJ-70-00126	Washer 2x5x0.5	Beilagscheibe 2x5x0.5
	1-JJ-70-00130	Screw M2x17	Schraube M2x17
RCH-70-052	1-JJ-70-00123	Support	Halterung
RCH-70-053	1-JJ-70-00114	Washer 3x4x0.5	Beilagscheibe 3x4x0.5
	1-JJ-70-00115	L-Lever	L-Hebel
	1-JJ-70-00116	Washer 3x4x5	Hülse 3x4x5
RCH-70-054	1-JJ-70-00119	Frame spacer	Distanzstück
RCH-70-055	1-JJ-70-00117	Tail frame 1	Heckrahmen 1
RCH-70-056	1-JJ-70-00120	Tail frame 2	Heckrahmen 2
RCH-70-057	1-JJ-70-00118	Tail rotor hub	Heckhalter
RCH-70-058	1-JJ-70-00136	Tail blade	Heckrotorblatt
	1-JJ-70-00154	Tail blade	Heckrotor
RCH-70-059	1-JJ-70-00151	Main Blade	Hauptrotorblatt
RCH-70-060	1-JJ-70-00146	Main Belt	Zahnriemen
RCH-70-061	1-JJ-70-00002	Screw M3x18	Schraube M3x18
RCH-70-062	1-JJ-70-00005	Screw M2.5x12	Schraube M2.5x12
RCH-70-063	1-JJ-70-00006	Screw M4x24-6.5	Paßschraube M4x24-6.5
RCH-70-064	1-JJ-70-00007	Self Locking Nut M4	Stopfmutter M4
RCH-70-065	1-JJ-70-00008	Screw M3x12	Schraube M3x12
RCH-70-066	1-JJ-70-00010	Screw M4x26-7	Paßschraube M4x26-7#
RCH-70-067	1-JJ-70-00011	Screw M4x10	Schraube M4x10
RCH-70-068	1-JJ-70-00013	Thrust Bearing 6x14x5	Drucklager 6x14x5
RCH-70-069	1-JJ-70-00015	Bearing 8x14x4	Kugellager 8x14x4
RCH-70-070	1-JJ-70-00040	Servo rod guide	Gestängeführung
RCH-70-071	1-JJ-70-00045	Bearing 5x10x4	Kugellager 5x10x4
RCH-70-072	1-JJ-70-00054	Screw M2.5x8	Schraube M2.5x8
RCH-70-073	1-JJ-70-00055	Bearing 12x24x6	Kugellager 12x24x6
RCH-70-074	1-JJ-70-00056	Bearing 10x19x5	Kugellager 10x19x5
RCH-70-075	1-JJ-70-00081	Nylon Nut M2.5	Nylon Mutter M2.5
RCH-70-076	1-JJ-70-00084	Screw M2.5x8	Schraube M2.5x8
RCH-70-077	1-JJ-70-00085	Screw M2.5x20	Schraube M2.5x20
RCH-70-078	1-JJ-70-00086	Screw M3x8	Schraube M3x8

RCH-70-079	1-JJ-70-00090	rotor head 4 blade top	Rotorkopf 4 Blatt oben
	1-JJ-70-00133	rotor head 4 blade bottom	Rotorkopf 4 Blatt unten
RCH-70-080	1-JJ-70-00100	Bearing 7x11x3	Kugellager 7x11x3
RCH-70-081	1-JJ-70-00101	Bearing 3x6x2.5	Kugellager 3x6x2.5
RCH-70-082	1-JJ-70-00109	Blade grip	Rotorblatthalter
RCH-70-083	1-JJ-70-00124	Bearing 5x10x4	Kugellager 5x10x4
RCH-70-084	1-JJ-70-00127	Screw M3x8	Schraube M3x8
RCH-70-085	1-JJ-70-00128	Screw M3x20	Schraube M3x20
RCH-70-086	1-JJ-70-00131	Screw M2x10	Schraube M2x10
RCH-70-087	1-JJ-70-00132	Screw M2x5	Schraube M2x5
RCH-70-088	1-JJ-70-00134	rotor head 5 blade top	Rotorkopf 5 Blatt oben
	1-JJ-70-00135	rotor head 5 blade bottom	Rotorkopf 5 Blatt unten
RCH-70-090	1-JJ-70-00138	Sleeve 2x5x6.5	Hülse 2x5x6.5
	1-JJ-70-00139	Ball Link	Kugelkopfverbinder
RCH-70-091	1-JJ-70-00140	Screw M2x14	Schraube M2x14
RCH-70-092			
RCH-70-093	1-JJ-70-00142	Uniball 5mm	Uniball 5mm
RCH-70-094	1-JJ-70-00143	Pitch lever 4 blade	Pitchhebel 4 Blatt
RCH-70-095	1-JJ-70-00144	Pitch lever 3 blade	Pitchhebel 3 Blatt
RCH-70-096	1-JJ-70-00145	Tail shaft 3/4 blade	Heckwelle 3/4 Blatt
RCH-70-097	1-60-WJ-00015	Washer 12x18x0.1	Beilagscheibe 12x18x0.1
RCH-70-098	1-JJ-70-00043	Set screw M4x4	Madenschraube M4x4
RCH-70-099	1-JJ-70-00053	Screw M3x6	Schraube M3.6
RCH-70-100	1-JJ-70-00052	Washer 3x7x0.5	Beilagscheibe 3x7x0.5
RCH-70-101	1-JJ-70-00048	Ball link 5mm	Kugelkopf 5mm
RCH-70-102	1-JJ-70-00059	Screw M3x10	Schraube M3x10
RCH-70-103	1-JJ-70-00069	Nut M2	Mutter M2
RCH-70-104	1-JJ-70-00091	Bearing 12x18x4	Kugellager 12x18x4
RCH-70-105	1-60-WJ-00004	Shaft bevel gear	Kegelrad 20T
RCH-70-106	1-JJ-70-00089	Washer 10x13x0.1	Beilagscheibe 10x13x0.1
RCH-70-107	1-JJ-70-00129	Nylon Nut M2	Nylon Mutter M2
RCH-70-108	1-JJ-70-00141	Tail spindle	Heckrotor Welle
RCH-70-109	1-JX-47-00115	Rotor hub 3 blade	Rotorkopf 3 Blatt
RCH-70-110	1-JX-47-00103	Rotor hub 4 blade	Rotorkopf 4 Blatt

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