

# Goblin

## HELICOPTER

### Goblin 570 Manual





## Goblin 570 Manual

Release 1.1 - March 2014

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**The Goblin** is a high performance radio controlled helicopter.

The design is original, moving away from traditional schemes, searching rationality for simplicity.

Our goal was to create a simple, high performance helicopter, with a minimum of mechanical components, and simple maintenance.

Please read this user manual carefully, it contains instructions for the correct assembly of the model.

Please refer to the web site [www.goblin-helicopter.com](http://www.goblin-helicopter.com) for updates and other important information.

**Very Important:**

Inside Box 4, you will find Bag 9 with a red label. This bag contains your serial number tag. Please take a moment to register your kit online via our web site at:

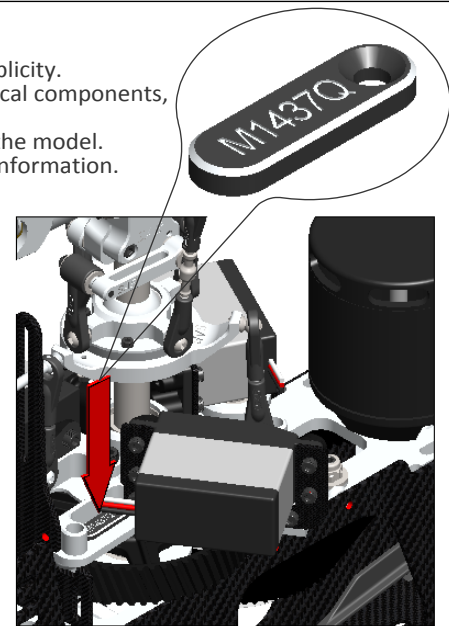
<http://www.goblin-helicopter.com/>

It is extremely important that you take a moment to register your helicopter with us. This is the only way to ensure that you are properly informed about changes to your kit, such as upgrades, retrofits and other important developments. SAB Heli Division cannot be held responsible for issues arising with your model and will not provide support unless you register your serial number.

To mount the serial number tag on your helicopter, please refer to page 25.

Thank you for your purchase, we hope you enjoy your new Goblin helicopter!

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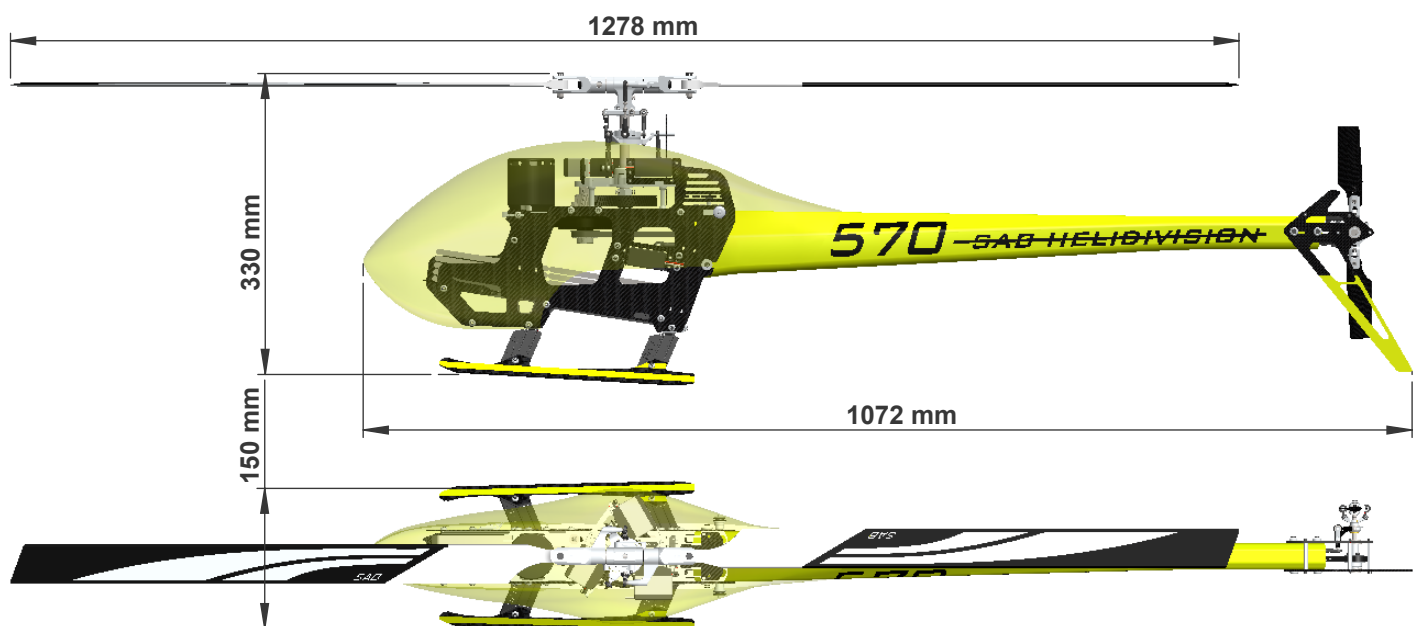
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**SPECIFICATIONS**



- Main rotor diameter: 1278mm (with 570mm blades)  
 - Main blade length: 570mm (up to 575mm)  
 - Tail rotor diameter: 260mm  
 - Tail blade length: 95mm

- Weight including standard electronics: 2400g (excluding batteries).  
 - Maximum motor size: diameter 52mm, height 56mm  
 - Battery compartment:  
 \* 6S–5000/5500 mAh : Max dimension 50x60x200mm.  
 \* 12S–2600/3300 mAh : Max dimension 50x45x280mm.

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### IMPORTANT NOTES

- \*This radio controlled helicopter is not a toy.
- \*This radio controlled helicopter can be very dangerous.
- \*This radio controlled helicopter is a technically complex device which has to be built and handled very carefully.
- \*This radio controlled helicopter must be built following these instructions. This manual provides the necessary information to correctly assemble the model. It is necessary to carefully follow all the instructions.
- \*Inexperienced pilots must be monitored by expert pilots.
- \*All operators must wear safety glasses and take appropriate safety precautions.
- \*A radio controlled helicopter must only be used in open spaces without obstacles, and far enough from people to minimize the possibility of accidents or of injury to property or persons.
- \*A radio controlled helicopter can behave in an unexpected manner, causing loss of control of the model, making it very dangerous.
- \*Lack of care with assembly or maintenance can result in an unreliable and dangerous model.

**\*Neither SAB Heli Division nor its agents have any control over the assembly, maintenance and use of this product. Therefore, no responsibility can be traced back to the manufacturer. You hereby agree to release SAB Heli Division from any responsibility or liability arising from the use of this product.**

### SAFETY GUIDELINES

- \*Fly only in areas dedicated to the use of model helicopters.
- \*Follow all control procedures for the radio frequency system.
- \*It is necessary that you know your radio system well. Check all functions of the transmitter before every flight.
- \*The blades of the model rotate at a very high speed; be aware of the danger they pose and the damage they may cause.
- \*Never fly in the vicinity of other people.

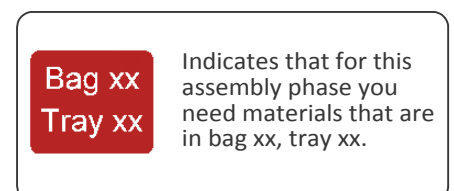
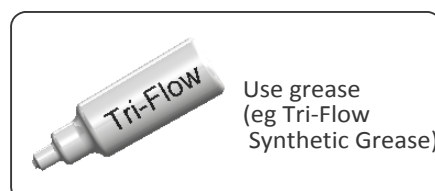
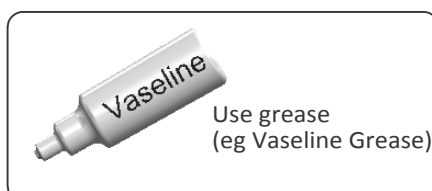
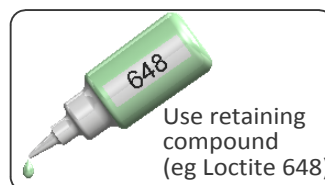
### NOTES FOR ASSEMBLY

Please refer to this manual for assembly instructions.

Follow the assembly order shown here, the instructions are divided into chapters, the chapters are structured in a logical sequence as each step is based on work done during the previous step. Changing the order of assembly may result in additional or unnecessary steps.

Use thread lockers and retaining compounds as indicated. In general, each bolt or screw that engages with a metal part requires thread lock.

It is necessary to pay attention to the symbols listed below:



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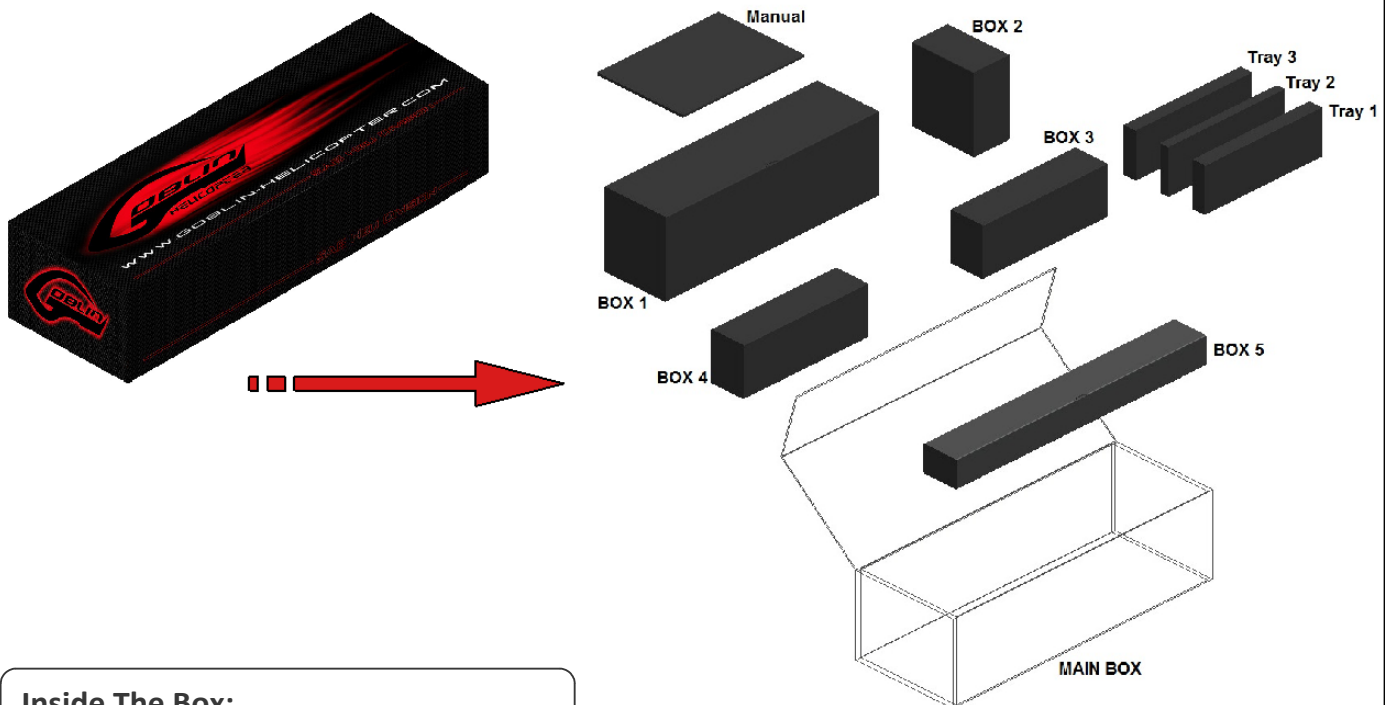
### ADDITIONAL COMPONENTS REQUIRED

- \*Electric Motor: 6S–1000/1400 Kv, 12S–500/700 Kv  
maximum diameter 52mm, maximum height 56mm,  
pinion shaft diameter 5 - 6mm
- \*Speed controller: 6S minimum 100A, 12S minimum 80A
- \*Batteries: 6S–5000/5500 mAh, 12S–2600/3300 mAh
- \*1 flybarless 3 axis control unit
- \*Radio power system, if not integrated with the ESC
- \*3 cyclic servos
- \*1 tail rotor servo
- \*6 channel radio control system on 2.4 GHz

### TOOLS, LUBRICANTS, ADHESIVES

- \*Generic pliers
- \*Hexagonal driver, size 1.5, 2, 2.5, 3, 4 mm
- \*4mm T-Wrench
- \*5.5mm Socket wrench (for M3 nuts)
- \*7mm Hex fork wrench (for M4 nuts)
- \*Medium threadlocker (eg. Loctite 243)
- \*Strong retaining compound (eg. Loctite 648)
- \*Spray lubricant (eg. Try-Flow Oil)
- \*Synthetic grease (eg. Tri-Flow Synthetic Grease)
- \*Grease (eg. Vaseline Grease)
- \*Cyanoacrylate adhesive
- \*Pitch Gauge (for set-up)
- \*Soldering equipment (for motor wiring)

### Inside the box:



### Inside The Box:

Box 1: Canopy, Bag 1-A, Bag 1-B, Bag 1-C and Blade Holder.

Box2: Optional Combo Components

Box 3: Mechanical Parts in 3 trays:

- Tray 1: Head parts
- Tray 2: Main structure
- Tray 3: Transmission parts

Box 4: Bags

Box 5: Blades, Tail Blades, Boom, Carbon Rod

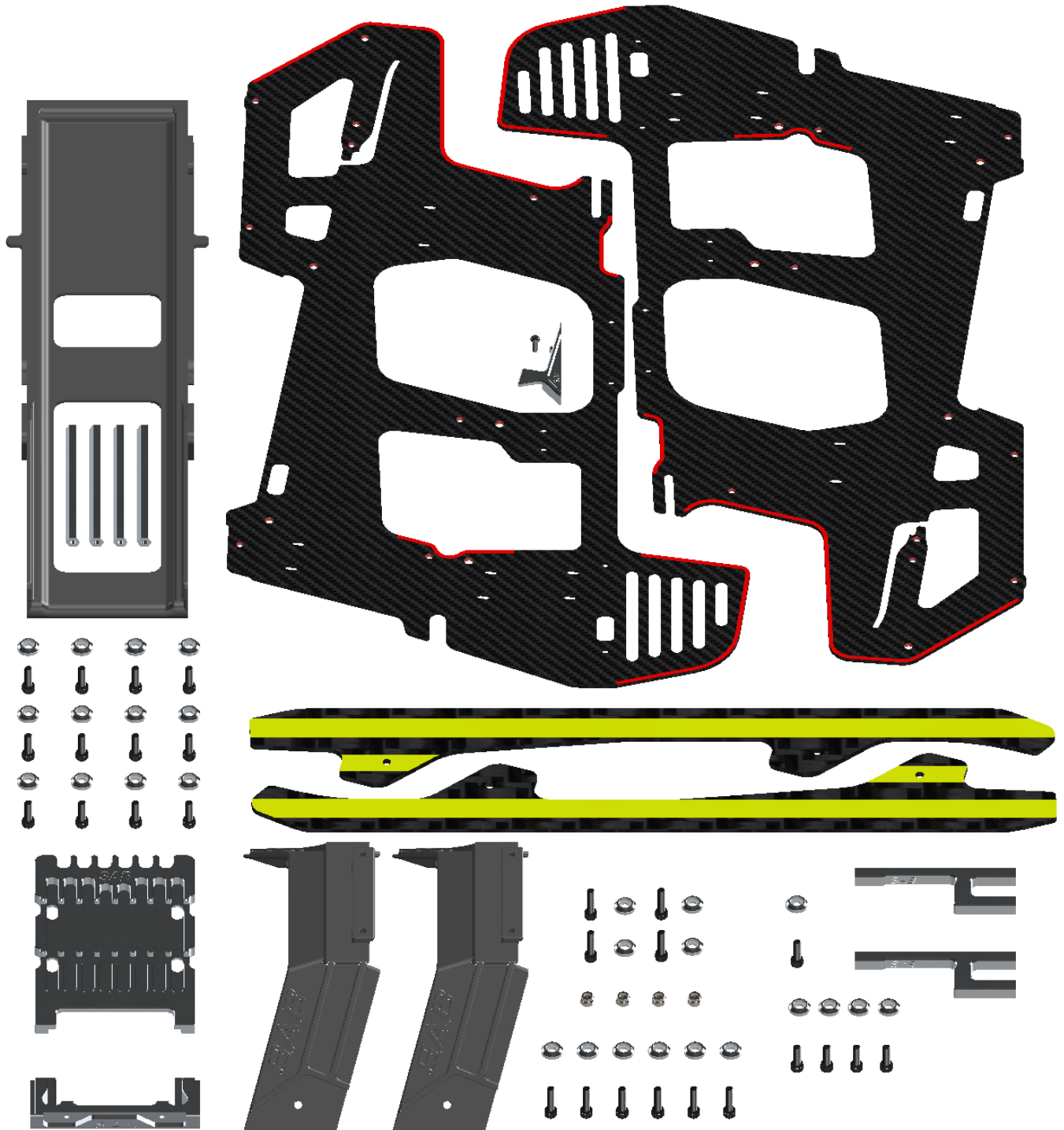
The assembly process is described in the following chapters. Each chapter provides you with the box, bag and/or foam tray numbers you will need for that chapter. The information is printed in a red box in the upper right hand corner of the page at the beginning of every chapter.



## 4-Carbon Frame



The manufacturing process of the carbon parts often leaves micro-burrs and sharp edges. We recommend de-burring the edges to minimize the risks of electrical wire cuts, etc. Very Important in red line zone.

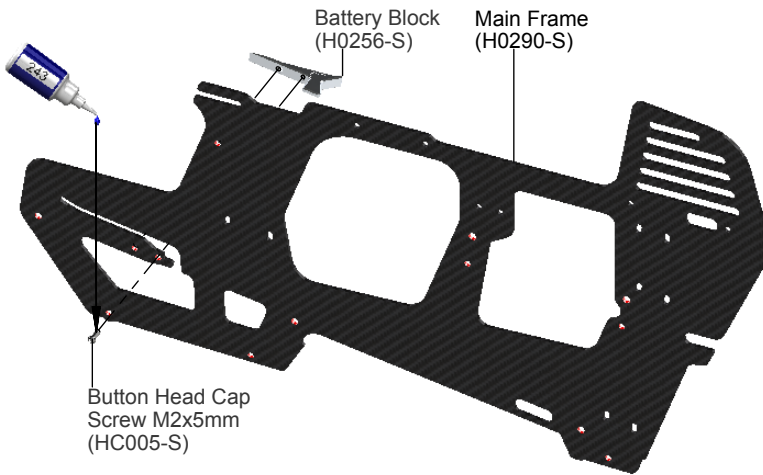




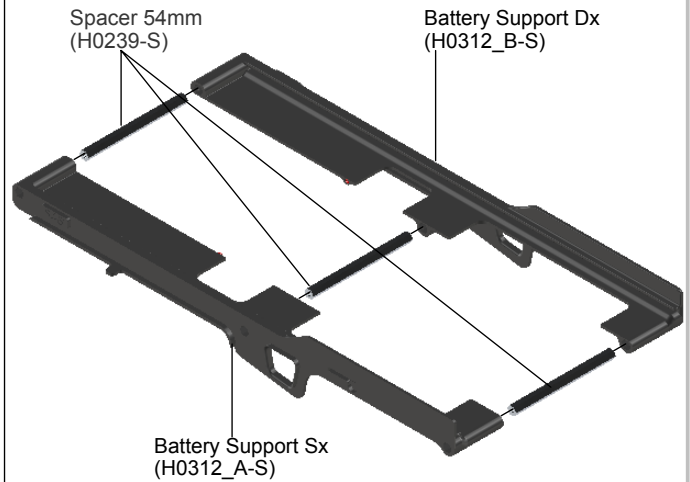
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Tray 3, Bag 1, Bag 1-A7, Bag 1-B7

Right Main Frame Assembly



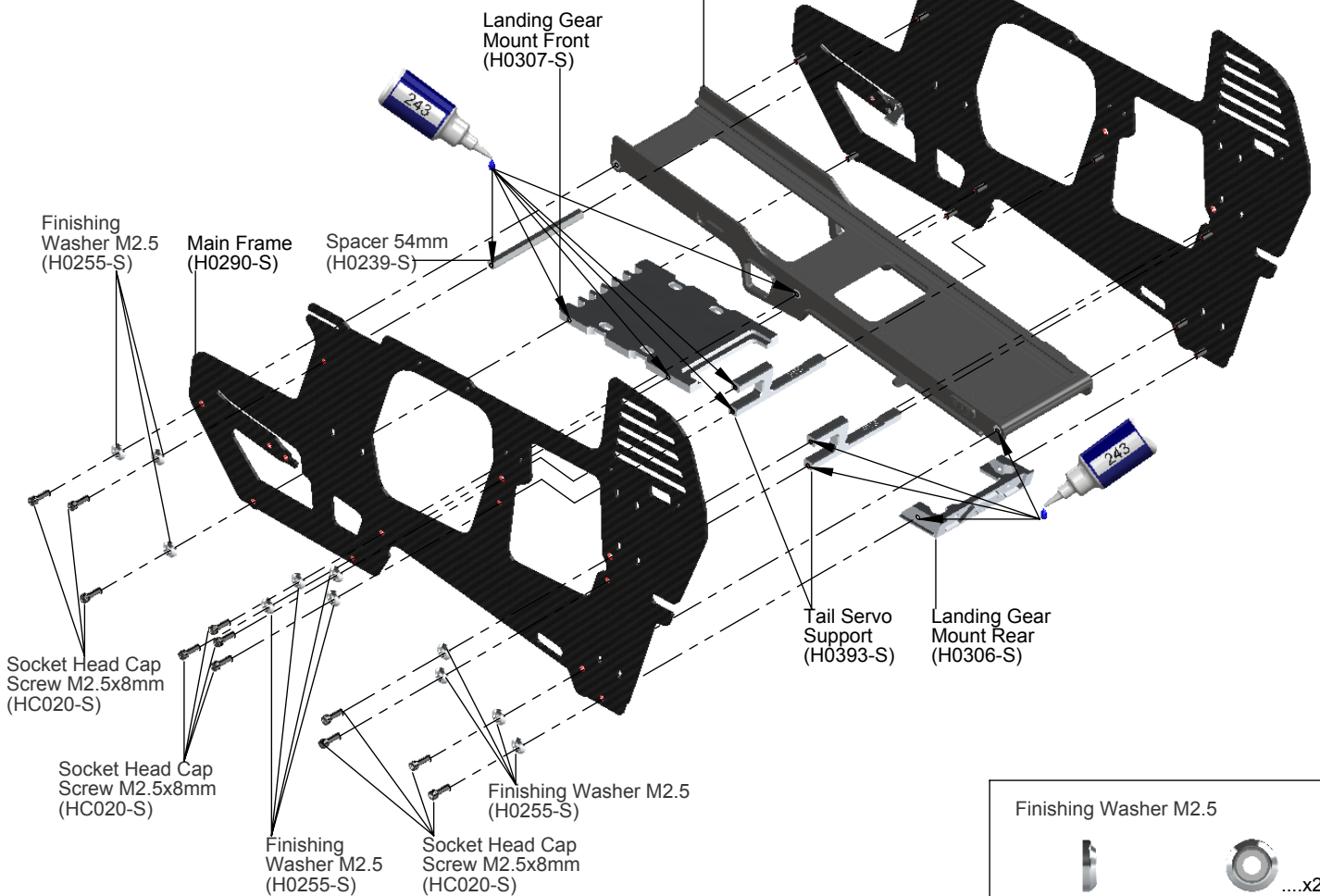
Battery Support Assembly



- Button Head Cap Screw M2x5mm  
 ...x1

Battery Support Assembly

Right Main Frame Assembly



- Finishing Washer M2.5  
 ...x20  
 Socket Head Cap Screw M2.5x8mm  
 ...x20

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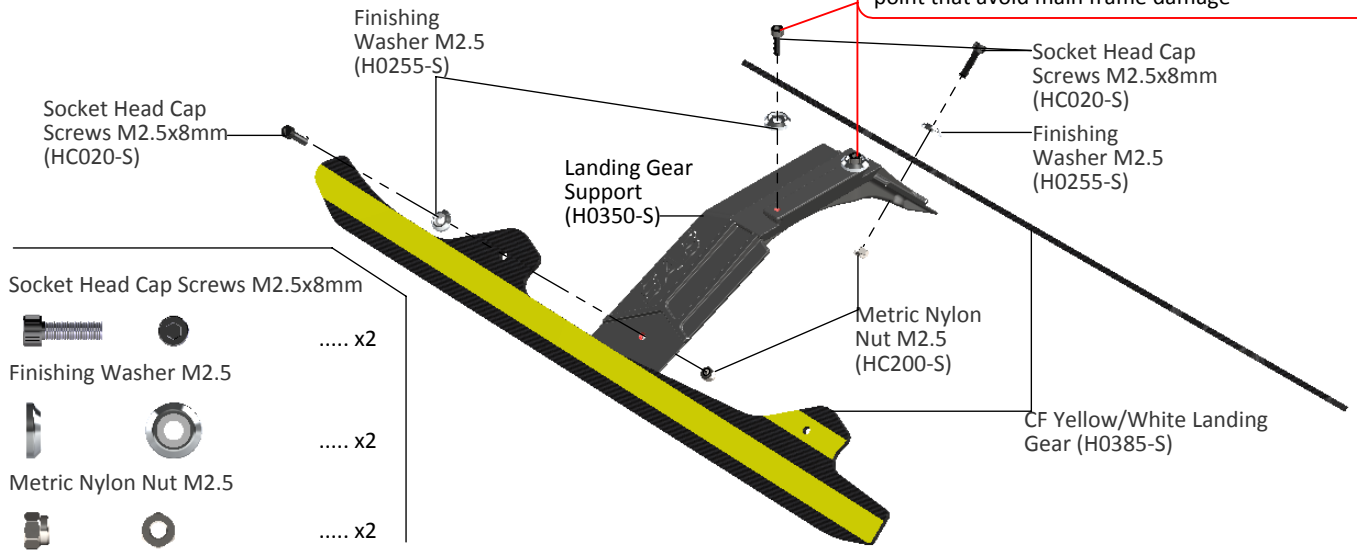


**SAB HELI DIVISION**

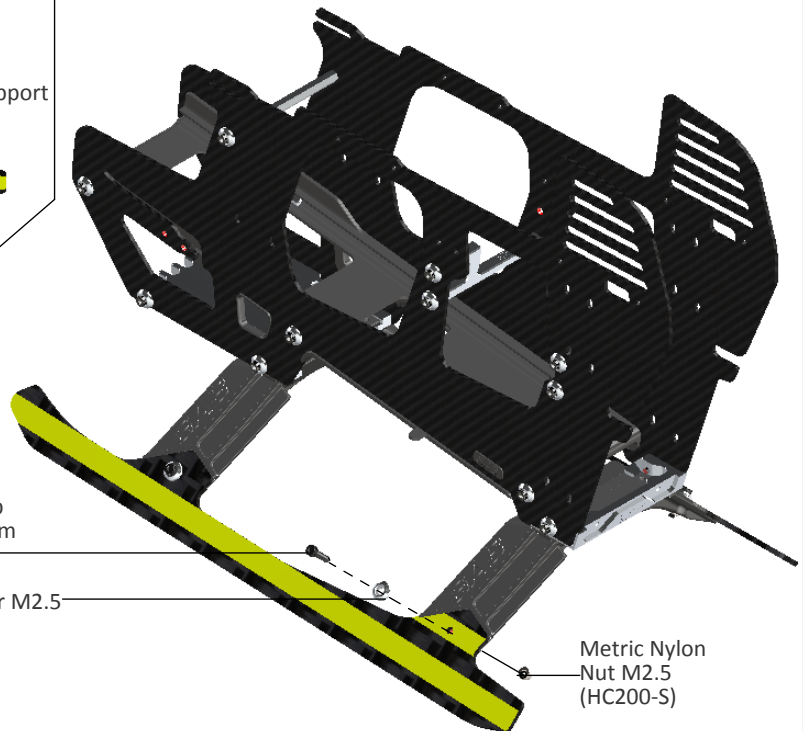
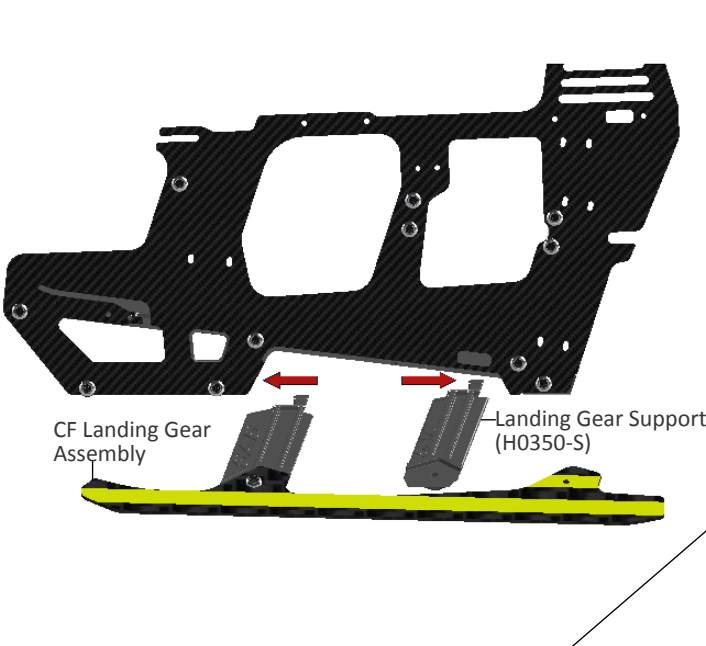
**Bag 1, Bag 1-C7**

**CF Landing Gear Assembly**

By using these screws you make landing gear stronger. However in case of hard crash you can damage the main frame. Without using screws that landing gear is a breaking point that avoid main frame damage



- |                                 |          |
|---------------------------------|----------|
| Socket Head Cap Screws M2.5x8mm | ..... x2 |
| Finishing Washer M2.5           | ..... x2 |
| Metric Nylon Nut M2.5           | ..... x2 |

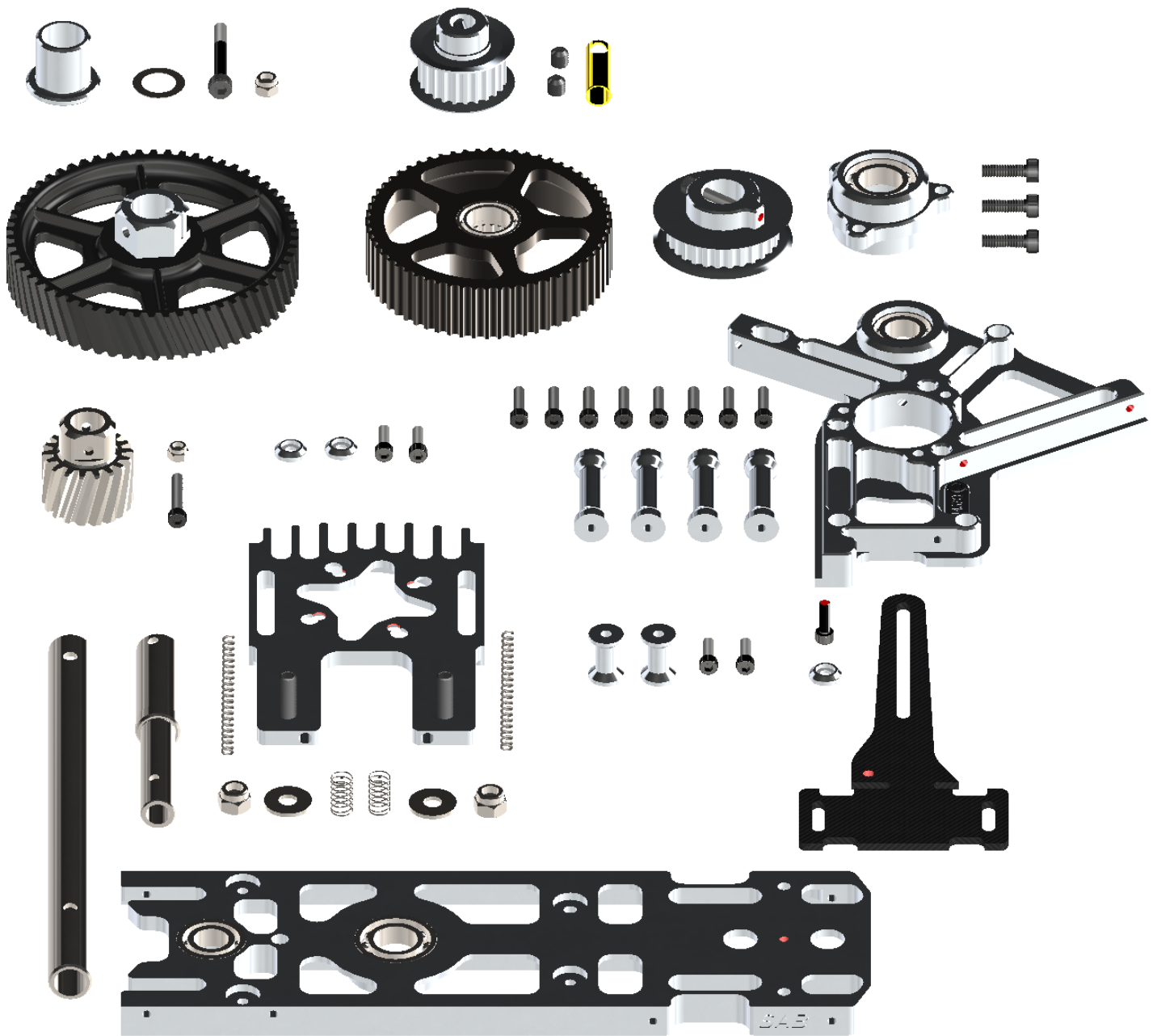


- |                                 |          |
|---------------------------------|----------|
| Socket Head Cap Screws M2.5x8mm | ..... x2 |
| Finishing Washer M2.5           | ..... x2 |
| Metric Nylon Nut M2.5           | ..... x2 |





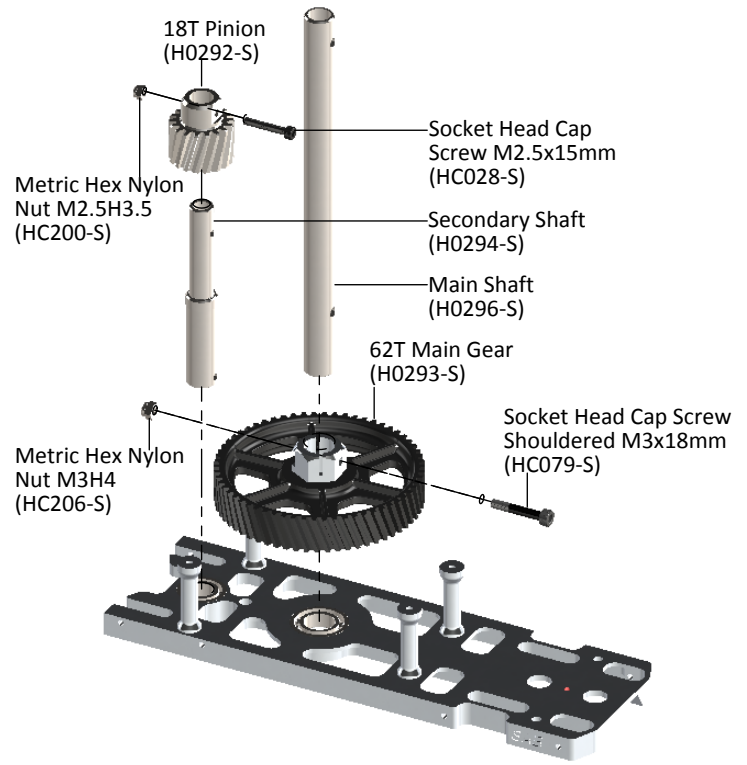
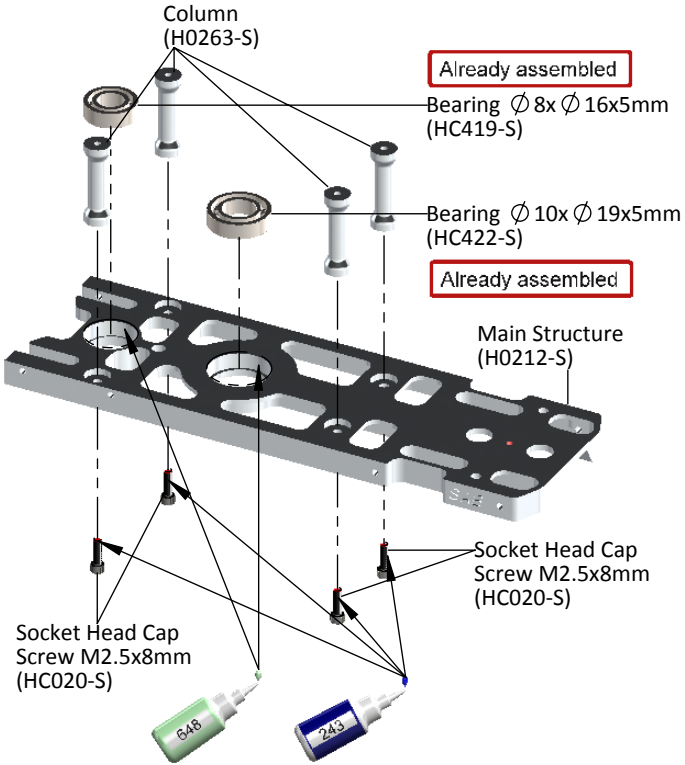
# 5-Transmission Assembly





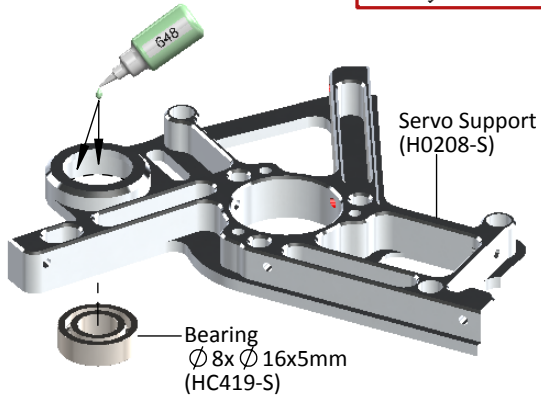
**SAB HELI DIVISION**

**Tray 2, Tray 3, Bag 2.1**



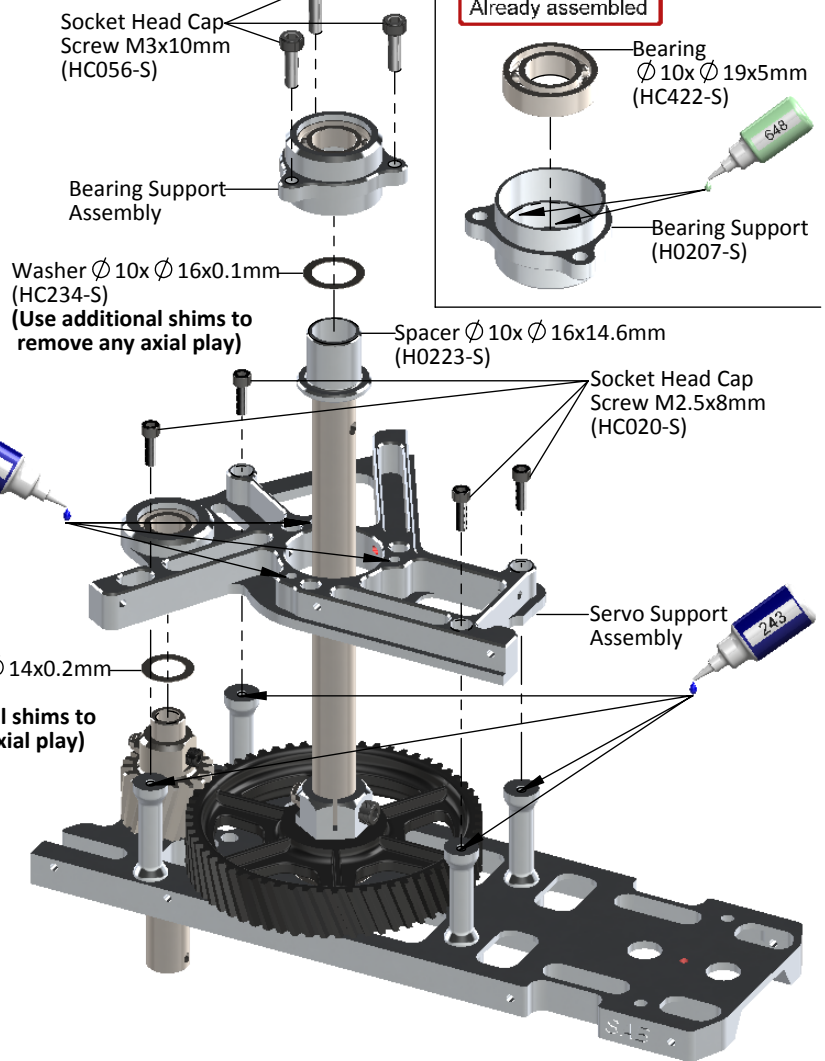
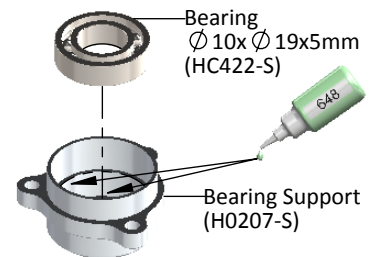
**Servo Support Assembly**

Already assembled



**Bearing Support Assembly**

Already assembled



**Metric Hex Nylon Nut M2.5H3.5**



**Metric Hex Nylon Nut M3 H4**



**Socket Head Cap Screw M2.5x8mm**



**Socket Head Cap Screw M2.5x15mm**



**Socket Head Cap Screw M3x10mm**



**Socket Head Cap Screw Shouldered M3x18mm**



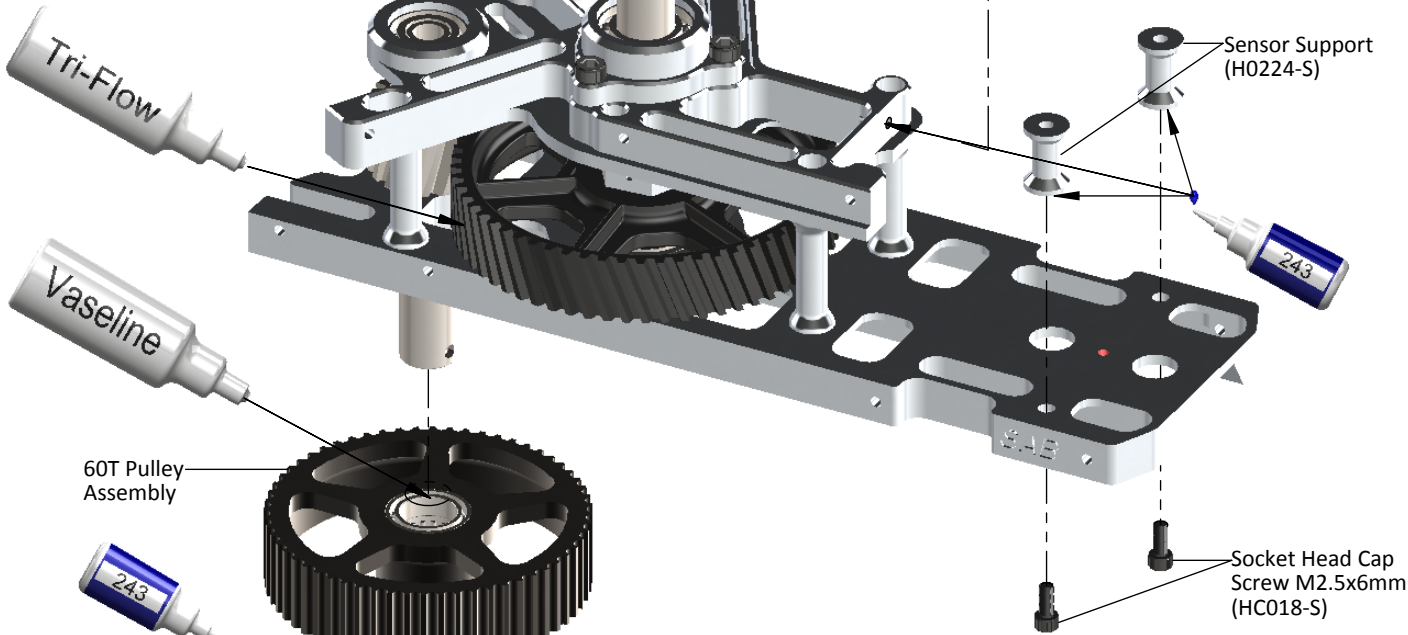
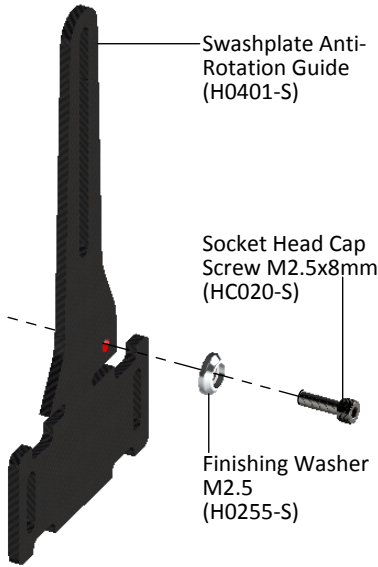


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Tray 3, Bag 2.2, Bag 2.3

60T Pulley Assembly

Already assembled



Socket Head Cap Screw Shouldered M2.5x19mm (HC033-S)

Washer  $\varnothing 10 \times \varnothing 16 \times 0.1 \text{mm}$  (HC234-S) (Use additional shims to remove any axial play)

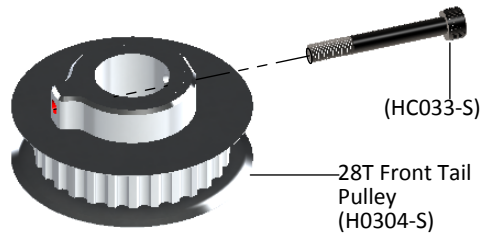
28T Front Tail Pulley Assembly (H0304-S)

Finishing Washer M2.5

- .....x1
- .....x2
- .....x1
- .....x1

Front Tail Pulley

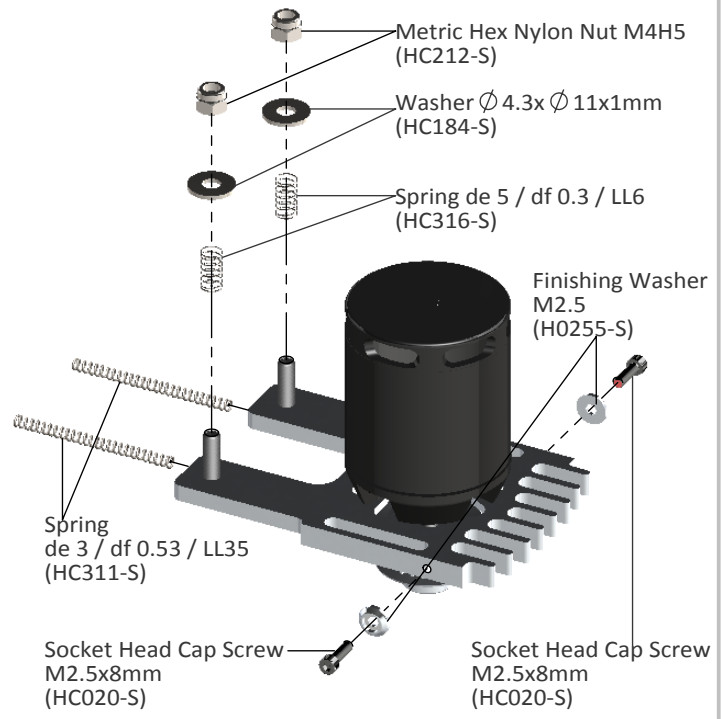
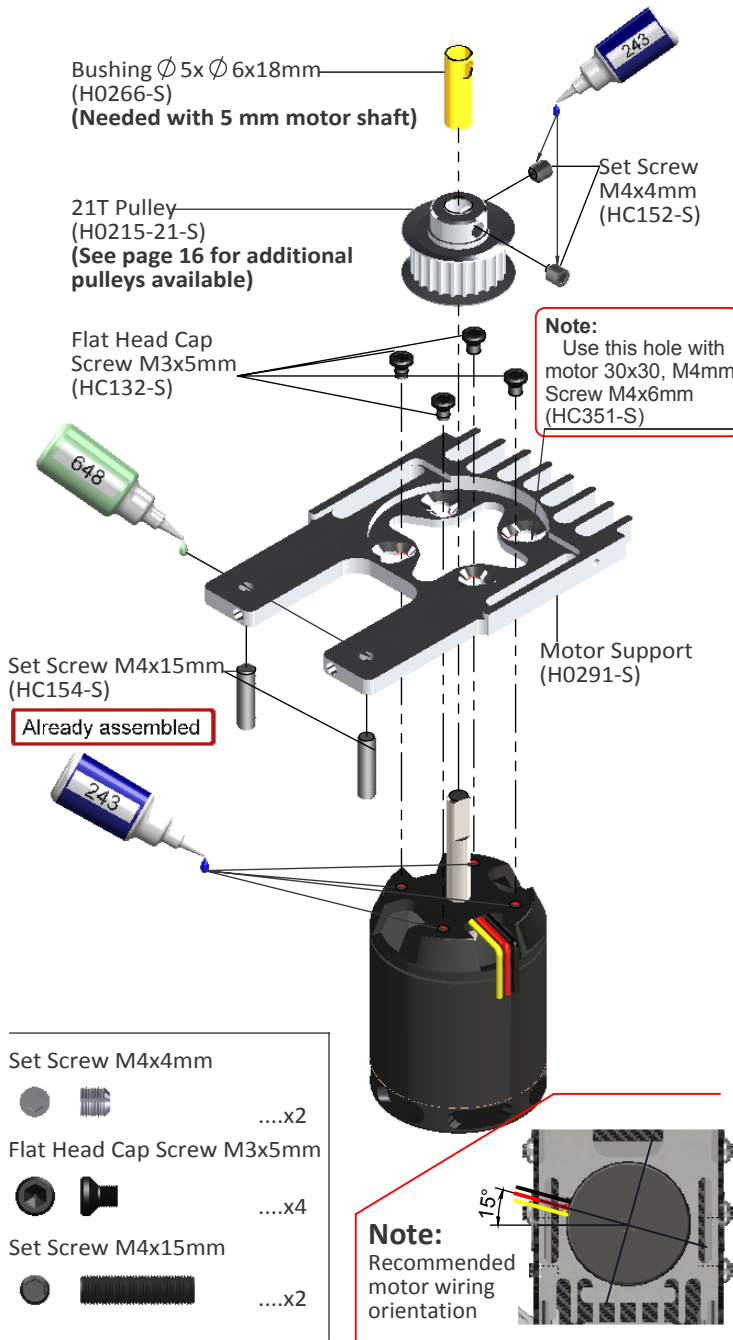
Already assembled



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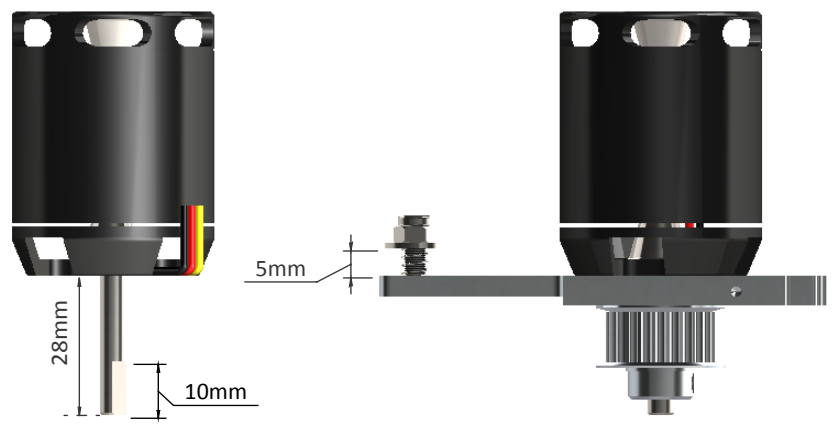
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- Metric Hex Nylon Nut M4 H5 .....x2
- Socket Head Cap Screw M2.5x8mm .....x2
- Finishing Washer M2.5 .....x2
- Washer  $\varnothing 4.3 \times \varnothing 11 \times 1\text{mm}$  .....x2

**Note:**

To maximize space for the batteries, it is advisable to shorten the motor shaft. Follow the dimensions given in this drawing. For the cut, you can use an electric tool like a "Dremel" with a cut-off disc. Additionally, ensure the motor shaft has an appropriate 'flat' for one of the set screws.





## 6-Main Rotor

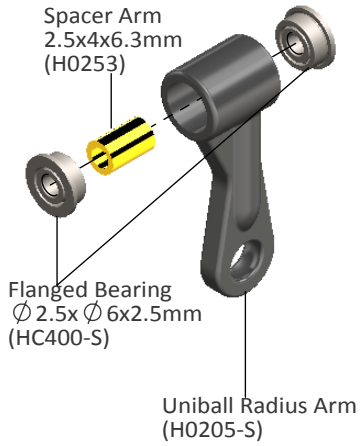




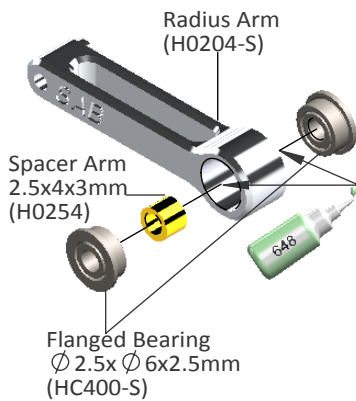
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Tray 1, Bag 4

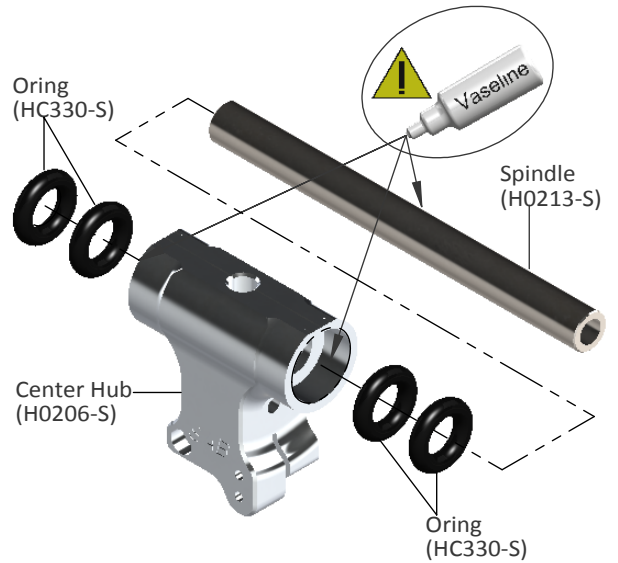
**Uniball Radius Arm ... x 2 Assembly**



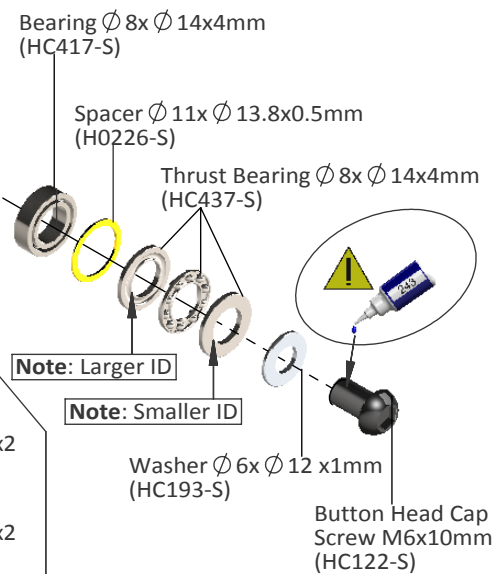
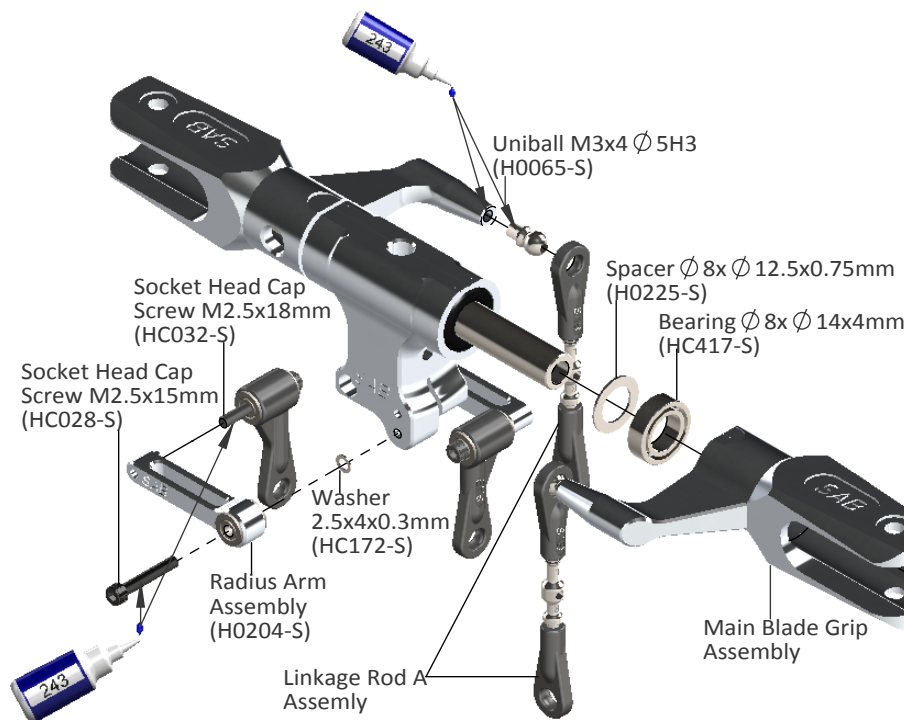
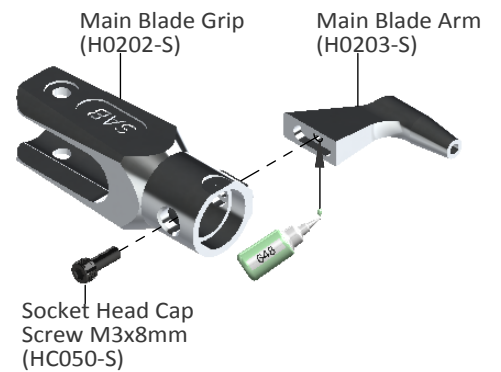
**Radius Arm ... x 2 Assembly**



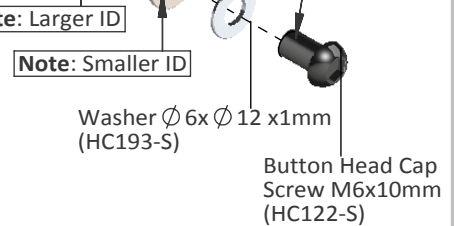
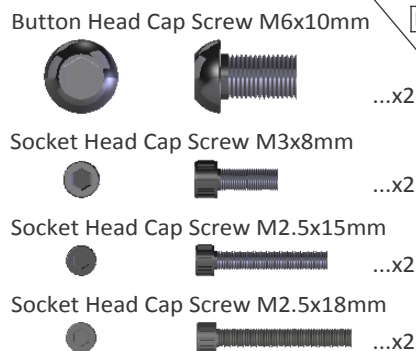
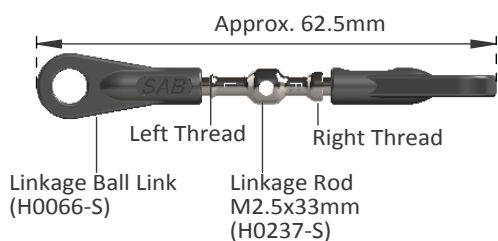
**Center Hub Assembly**



**Main Blade Grip Assembly ....x2**



**Linkage Rod A Assembly . . . .x2**



**Note:** Please add thread locker to the M6x10 Screws

(Initial length for the rods from the swashplate to the blade grip.)

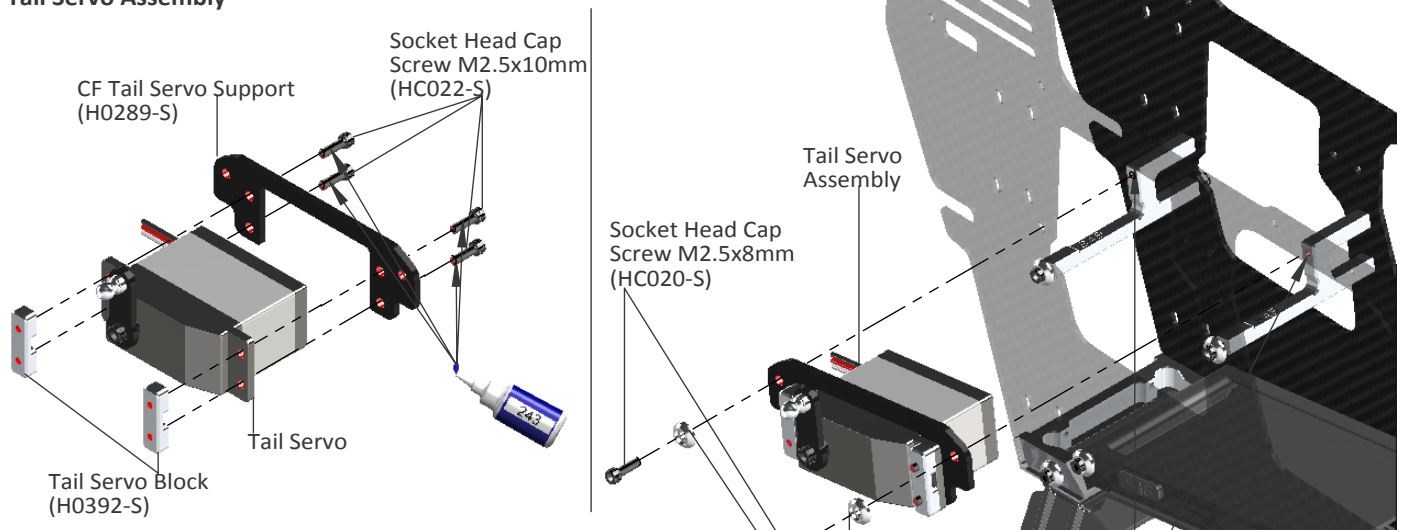
SAB HELI DIVISION



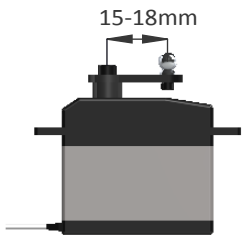
**SAB HELI DIVISION**

Tray 1, Tray 2, Bags 5.1, 5.2

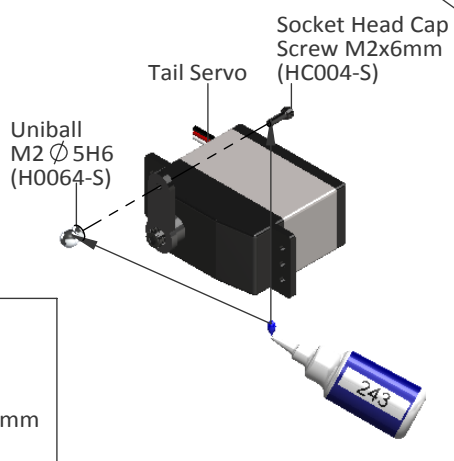
**Tail Servo Assembly**



The distance between the center of the horn and the ball should be between 15-18 mm.



**Tail Servo Assembly**



Uniball M2 Ø 5H6



Socket Head Cap Screw M2x6mm



Finishing C Washer M2.5 (H0255-S)

Socket Head Cap Screw M2.5x8mm



Socket Head Cap Screw M2.5x10mm

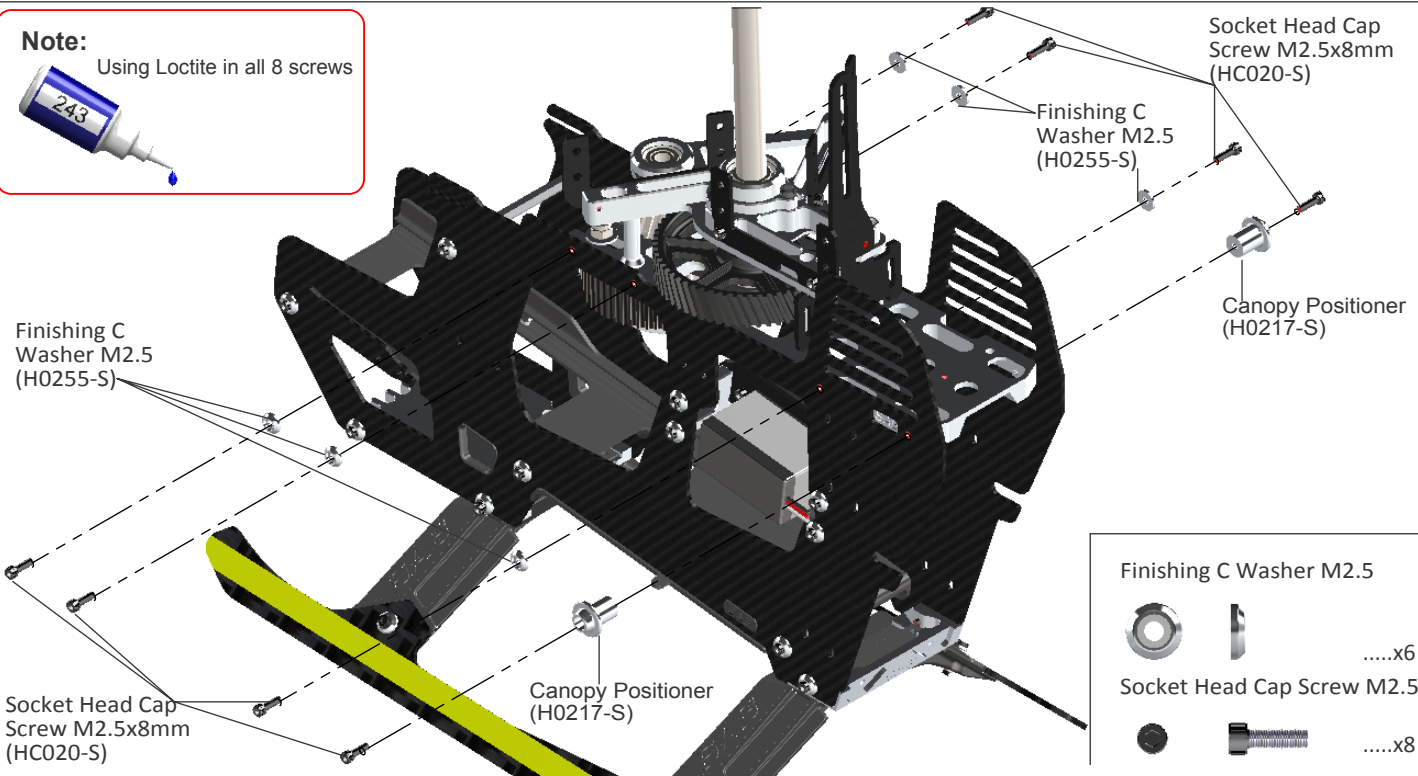


Finishing C Washer M2.5



**Note:**

Using Loctite in all 8 screws



Finishing C Washer M2.5



Socket Head Cap Screw M2.5x8

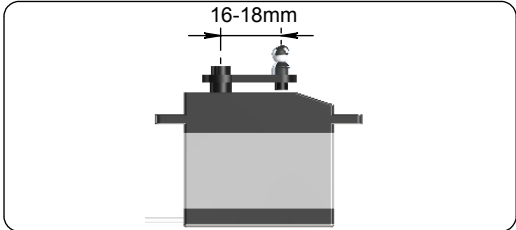


**SAB HELI DIVISION**



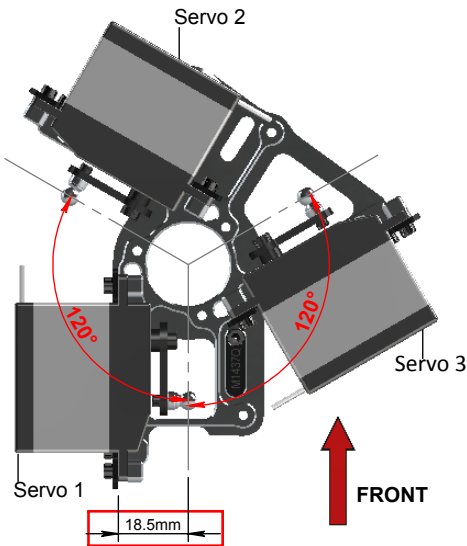
Installation Of The Swashplate Servos

The distance between the center of the horn and the ball should be between 16-18 mm (Figure 1). Select the carbon fiber servo mount that is suitable for the size of servos to be used (Figure 2).

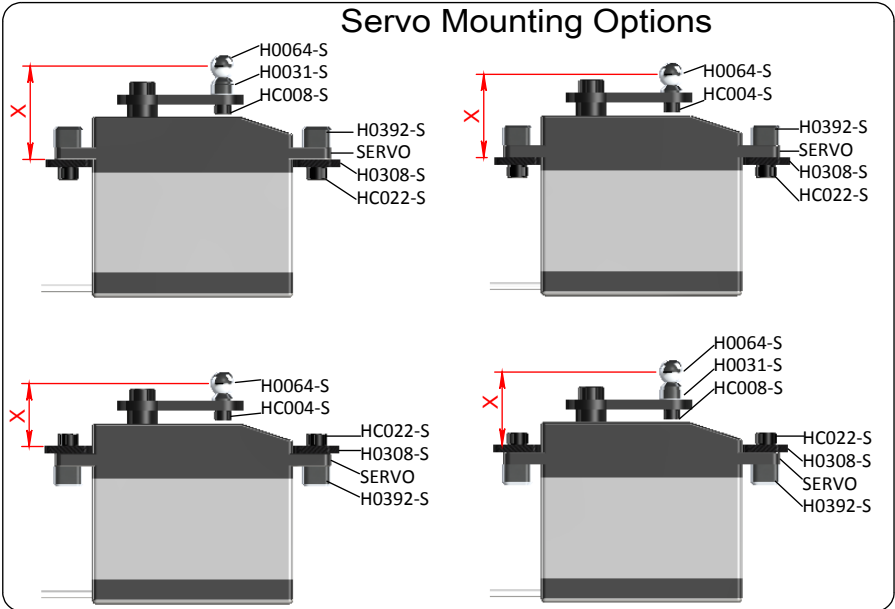


Servo Mounting

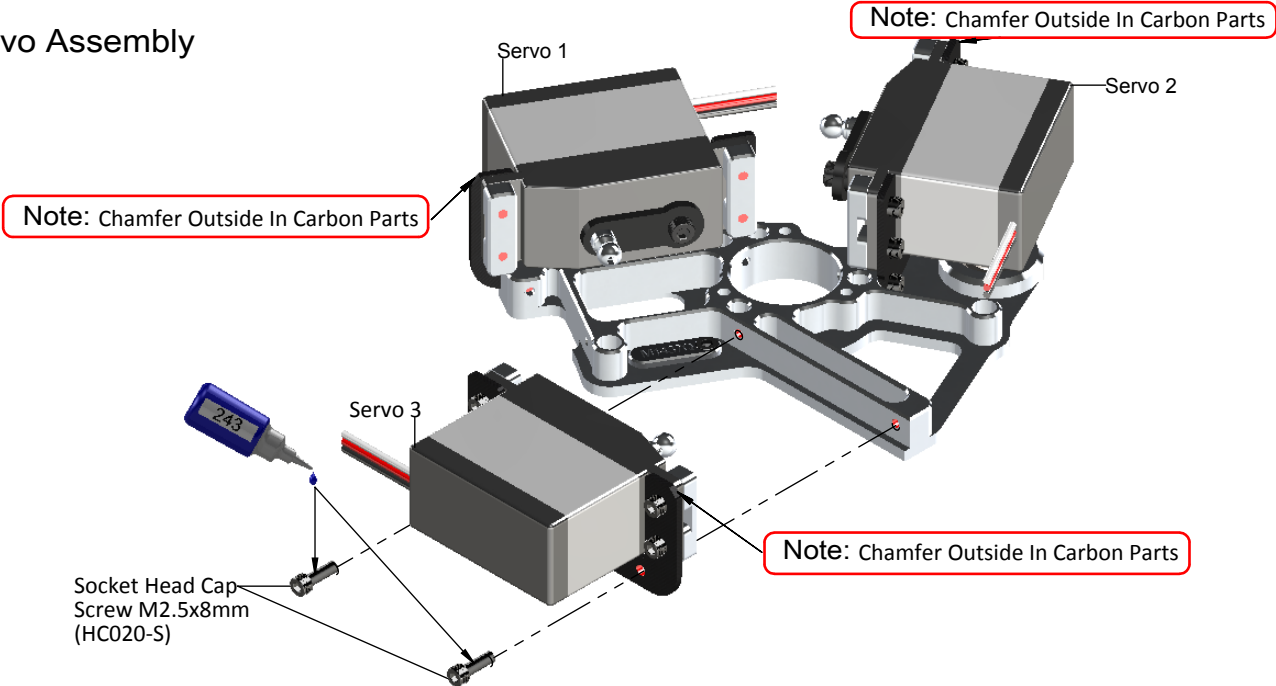
The servo linkages must be aligned correctly. In order to do this, you must chose from one of the options shown here. Figure 3 shows the installation of the servos at 120 degrees. Note that the distance between the carbon fiber servo mount and the center of the ball should be 18.5mm. Figure 4 shows 4 different mounting options, the distance "X" should be as close as possible to 18.5mm.



Servo Mounting Options



Final Servo Assembly



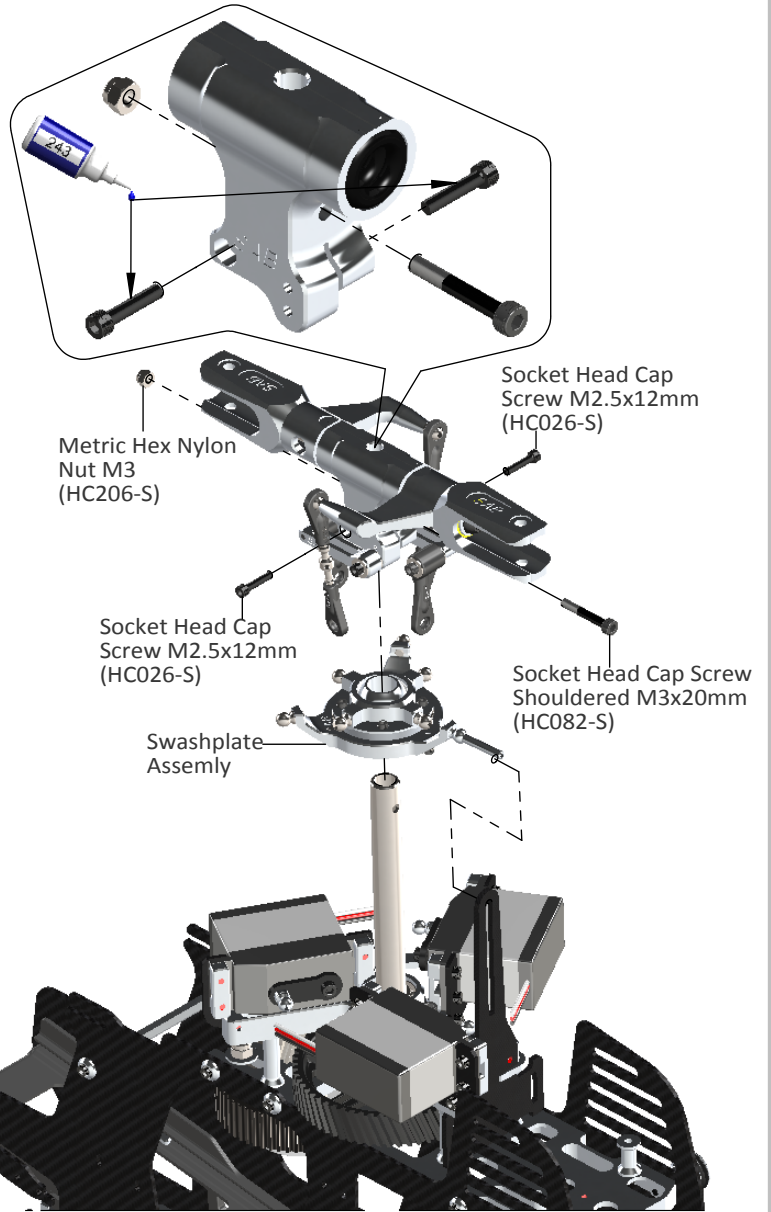
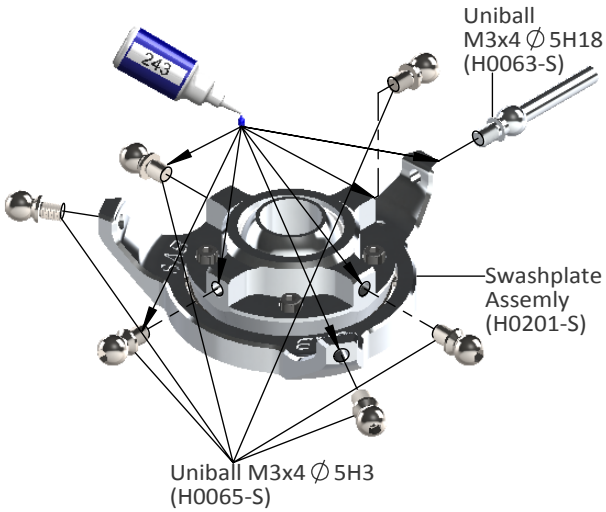




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Tray 1, Bags 5.5, 5.6

**Swashplate Assembly**



Metric Hex Nylon Nut M3



....x1

Socket Head Cap Screw M2.5x12mm



....x2

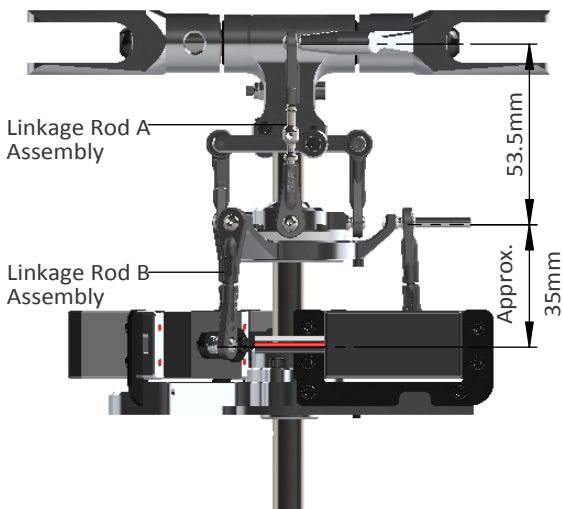
Socket Head Cap Screw Shouldered M3x20mm



....x1

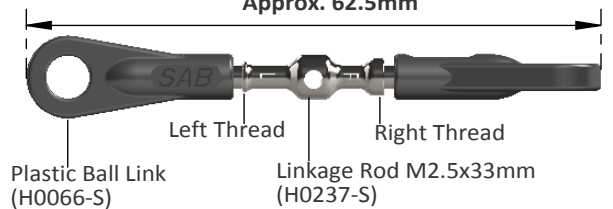
**Preliminary Head Setup**

Adjust the linkages as shown. You can change the tracking without disconnecting the plastic ball links by inserting a small tool through the rod hole and turning it.



**Linkage Rod A Assembly . . . .x2**

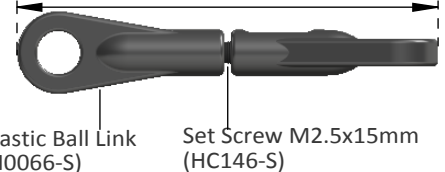
Approx. 62.5mm



(Initial length for the rods from the swash plate to the Blade Grip.)

**Linkage Rod B Assembly . . . .x3**

Approx. 44mm



(Initial length for the rods from the servos to the swash plate.)



**TRANSMISSION SETUP**

It is important to choose the right reduction ratio to maximize efficiency based on your required flight performance. The Goblin has many possible reduction ratios at your disposal. It is possible to optimize any motor and battery combination. It is recommended to use wiring and connector appropriate for the currents generated in a helicopter of this class.

If you are using a head speed calculator which requires a main gear and pinion tooth count, use 206 teeth for main gear (this takes into account the two stage reduction) and the tooth count of your pulley as the pinion count.

Below is a list of available reduction ratios:

H0215-16-S-16T	Pinion = ratio 12.9:1	H0215-20-S-20T	Pinion = ratio 10.3:1
H0215-17-S-17T	Pinion = ratio 12.2:1	H0215-21-S-21T	Pinion = ratio 9.8:1
H0215-18-S-18T	Pinion = ratio 11.5:1	H0215-22-S-22T	Pinion = ratio 9.4:1
H0215-19-S-19T	Pinion = ratio 10.9:1	H0215-23-S-23T	Pinion = ratio 9:1
		H0215-24-S-24T	Pinion = ratio 8.5:1

These are pulleys for motors with a 6 mm shaft. Each pulley includes an adapter for motors with a 5 mm shaft.

**Some example configurations:**

GOBLIN 570 CONFIGURATIONS						
Performance	Battery	Motor	ESC	Pinion	RPM Max	Pitch
GENERAL and 3D	6S - 5500 (5000 / 5500)	Scorpion HKIII4025-1100	EDGE 130	22T / 23T	2350 / 2450	± 12,5
			Jive 100LV YGE 120 LV	21T / 22T		
		Quantum 4125-1100	EDGE 130	22T / 23T		
			Jive 100LV YGE 120 LV	21T / 22T		
		Kontronik Pyro 650-1150	EDGE 130	21T / 22T		
			Jive 100LV YGE 120 LV	20T / 21T		
3D and HARD 3D	12S - 3000 (2600 / 3300)	Quantum 4125-560	EDGE 80 HV	22T / 23T	2400 / 2500	± 12,5
			Jive 80 HV YGE 90 HV	21T / 22T		
		Quantum 4125-560	EDGE 120 HV	22T / 23T / 24T	2400 / 2500 / 2600	
			Jive 120 HV YGE 120 HV	21T / 22T / 23T		
		Kontronik Pyro 650-620	EDGE 80 HV	20T / 21T	2400 / 2500	
			Jive 80 HV YGE 90 HV	19T / 20T		
		Pyro Competition 650-620	EDGE 120 HV	20T / 21T / 22T	2400 / 2500 / 2620	
			Jive 120 HV YGE 120 HV	19T / 20T / 21T		

Note: Although the Goblin can fly at high RPM, for safety reasons we recommend not exceeding 2600 RPM.



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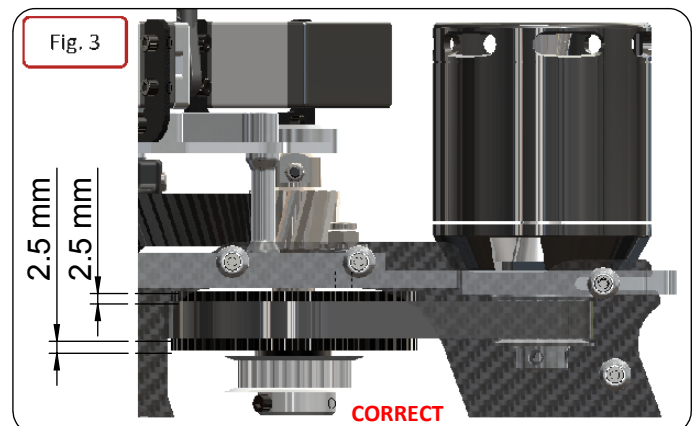
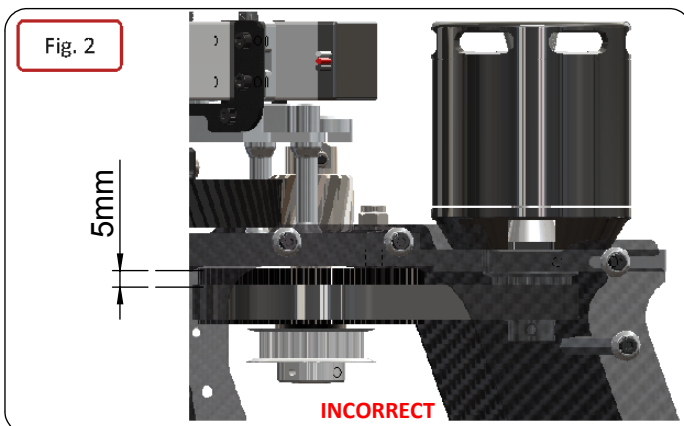
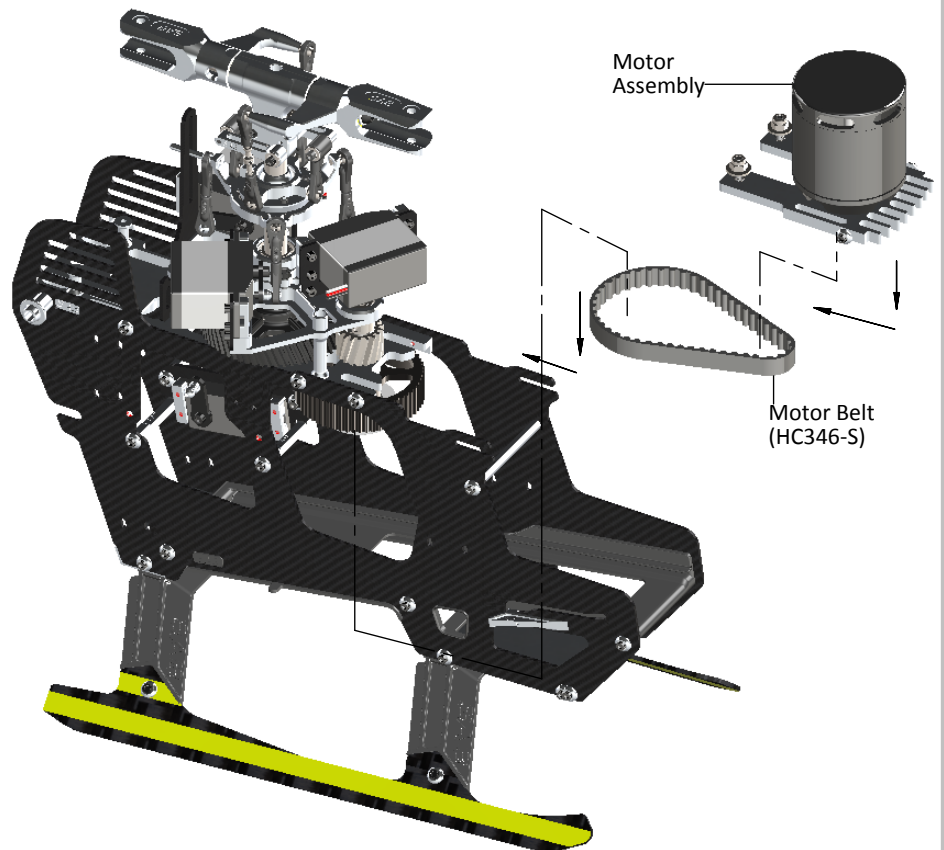
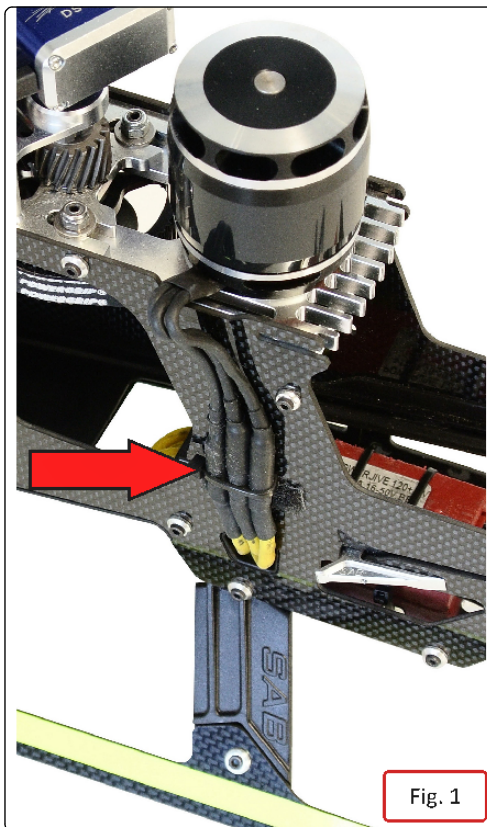
Bag 6.1

### Motor Belt Tension

- Install the motor and pulley to the motor mount plate.
- Place the motor assembly in position.
- Compress the springs by pushing the motor towards the main shaft.
- At max compression, tighten one of the slide screws temporarily.
- Put the belt around the motor pulley first, then put it around the big pulley.
- Rotate the motor a few times by hand to allow the belt to sit properly.
- Loosen up the slide screw; the springs will tension the belt.
- Help the springs by pulling the motor and tighten.
- The belt must be very tight.
- Make sure to tighten all screws and nuts.

Figure 1 shows the correct wiring for the motor. We recommend to use heat shrink in the joins between the motor and the ESC wires.

Check for proper vertical alignment of the motor pulley. Simply turn the motor several times by hand in the direction of normal rotation (counter clock-wise when viewed from above) and check to see if the belt is aligned with the big pulley. If the belt is riding too high, simply loosen up the motor pulley and drop it a bit, if it is riding too low, loosen up the motor pulley and raise it a bit (Fig 2 - 3).



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### De-Burr The Side Frames

We recommend de-burring the edges of the carbon parts in areas where electrical wires run. See Page 4.



### ESC Installation

The electronic speed control (ESC) is installed in the front part of the helicopter.

You can easily fasten the ESC with cable ties as shown in figures 1 and 2. Take care of orient the closure of the ties as shown in Figure 3.

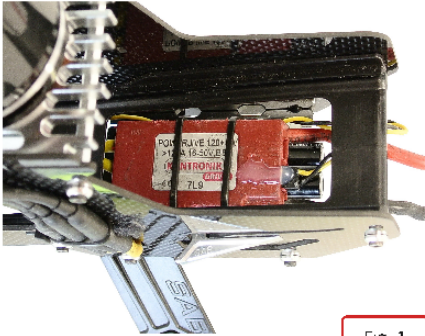


Fig 1

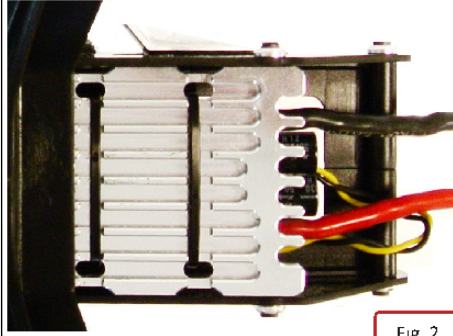


Fig 2

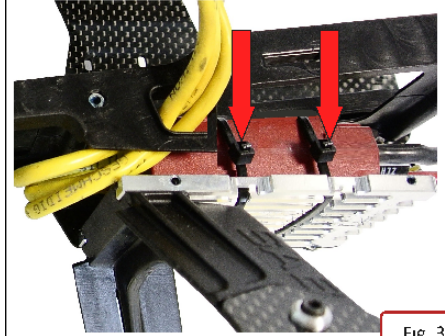


Fig 3

**Figure 4:** You can see the wiring for connecting the ESC to the central unit. Use cable ties to fasten the wires as indicated by the arrows.

**Figure 5:** Route the ESC throttle wire as shown, you can use hot glue to keep the wire in place.

**Figure 6:** You can install a BEC or Battery if required as shown.

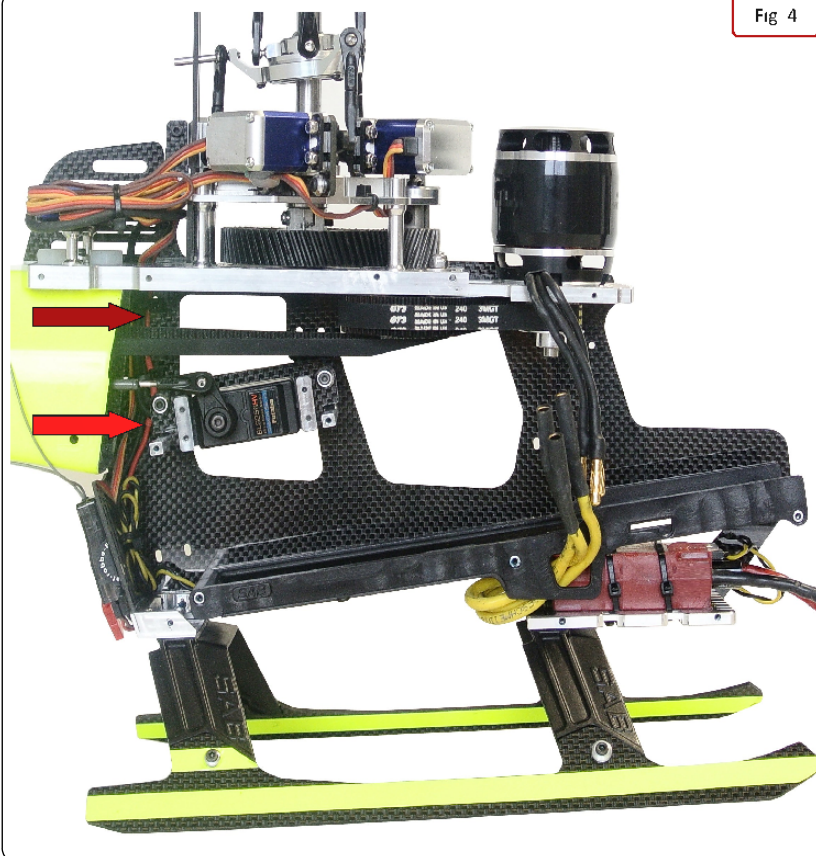


Fig 4

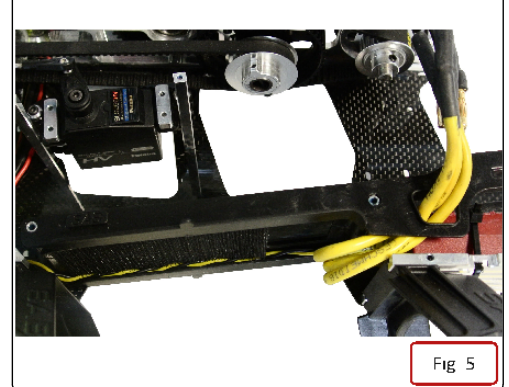


Fig 5

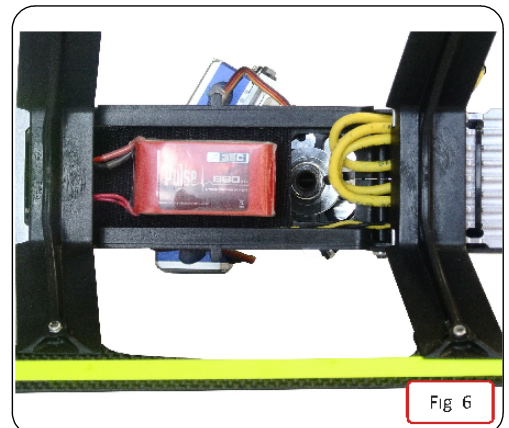


Fig 6

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### FBL System Installation

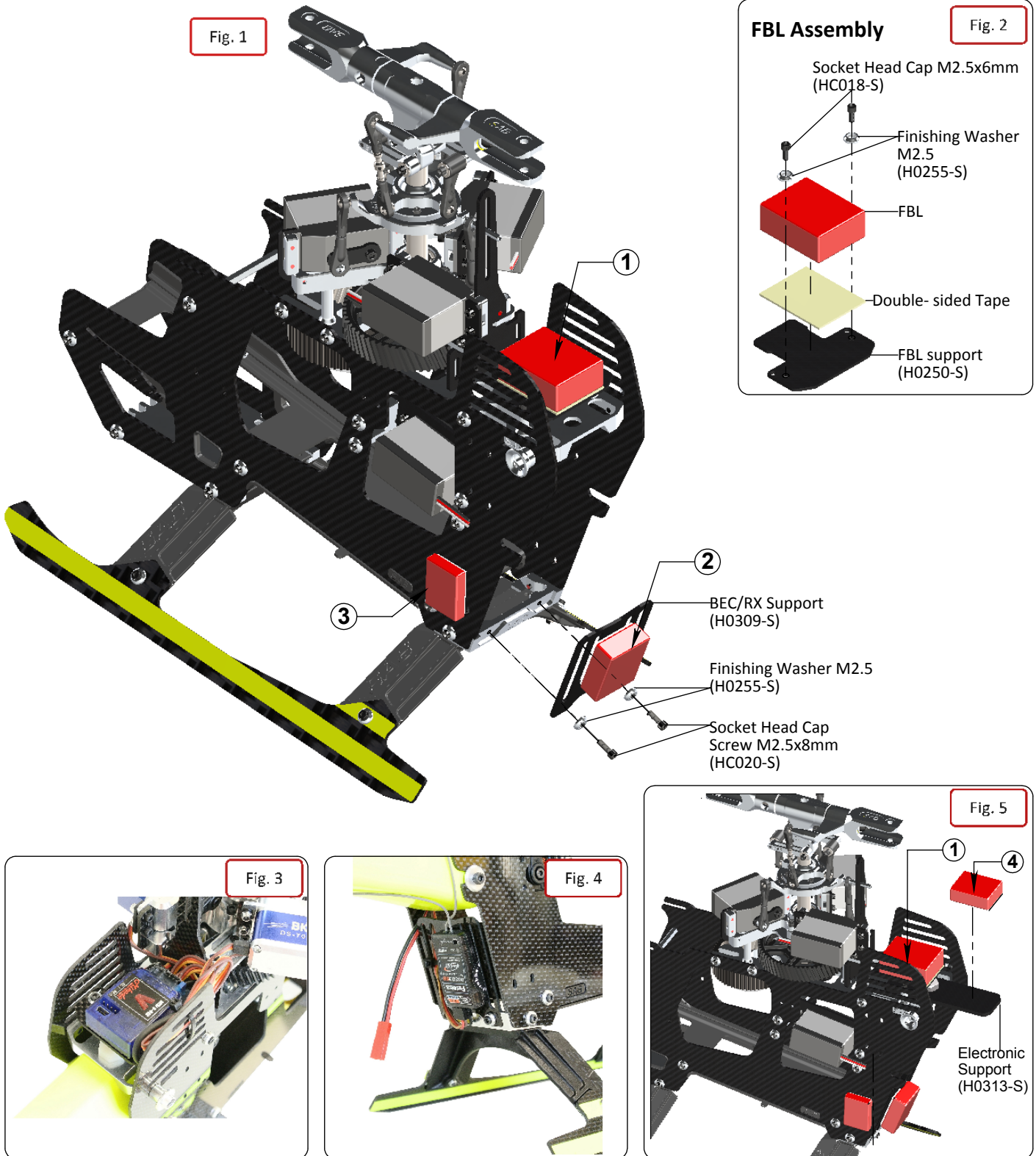
We recommend the use of a one unit flybarless system, i.e. Mini vBar, Microbeast, etc. However, a two unit flybarless system can also be installed.

For one unit systems, the unit is installed as shown in position 1. See Fig 1,2,3.

Position 2 and 3 can be used for RX System. See Fig 1,4.

Two unit FBL systems can be installed as follows: control unit in position 1 and sensor in position 4 or vice-versa. See Fig 5.

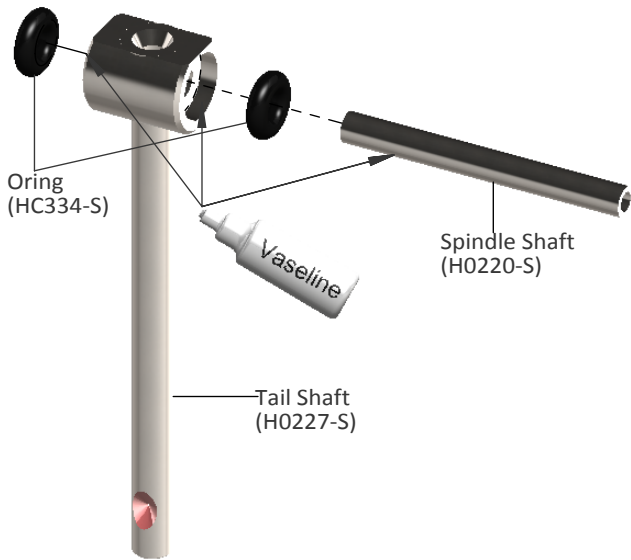
To obtain the position 4 use H0313 [Bag 8.1].





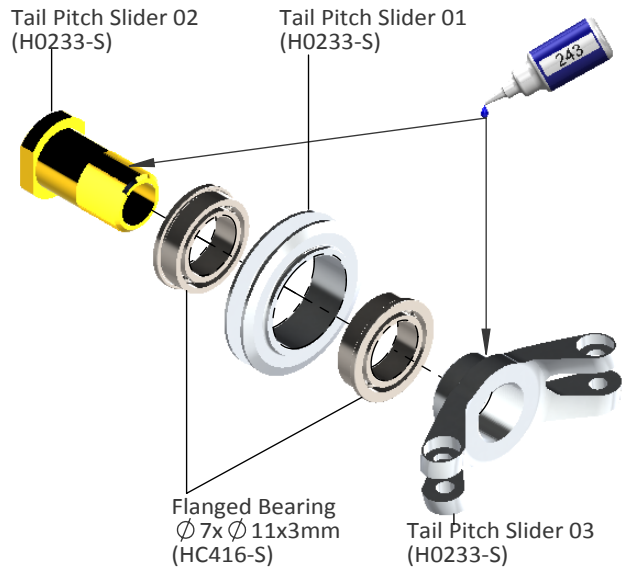
Tray 1, Bag 7.1, Bag 7.2

### Tail Rotor Hub Assembly

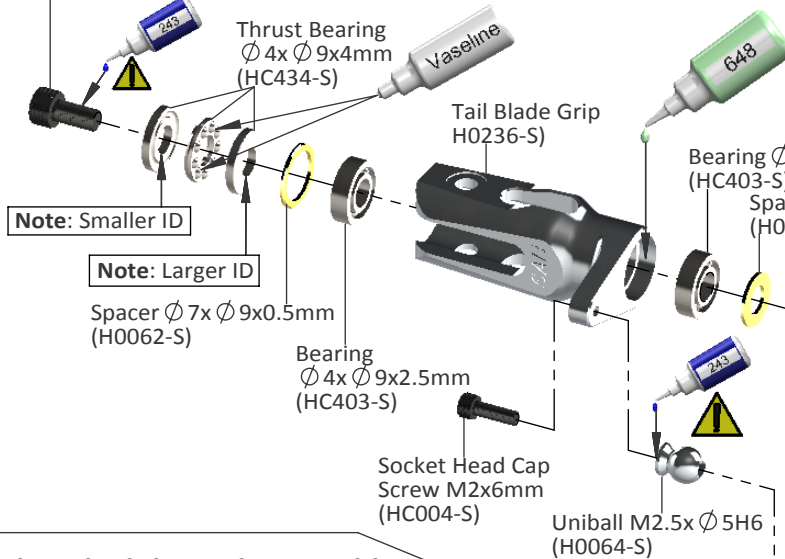


### Tail Pitch Slider Assembly

Already assembled



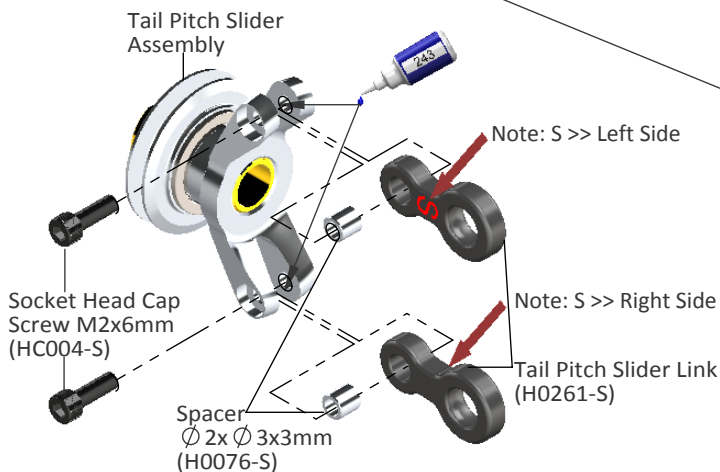
Socket Head Cap Screw M3x6mm (HC044-S)



#### Note:

It is normal for the tail to feel a bit tight after initial assembly as the tail spindle preload is usually high when the helicopter is brand new. The preload will loosen up after 2-5 flights allowing the system to become smooth.

### Tail Pitch Slider Link Assembly

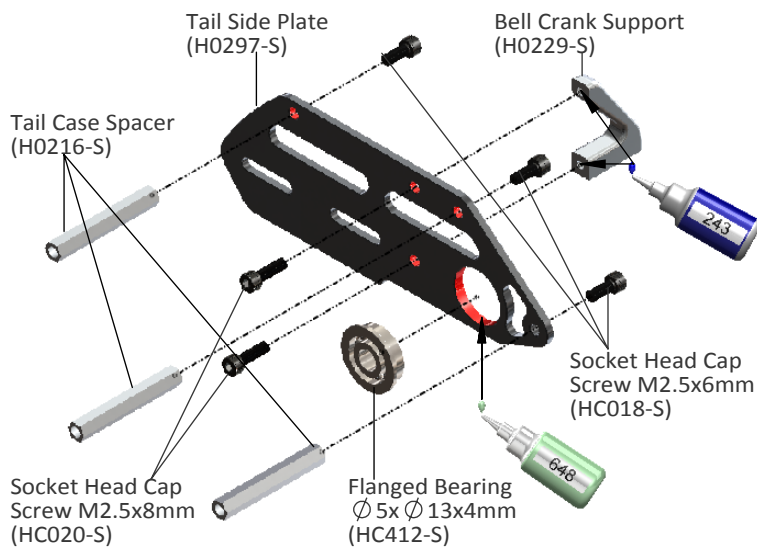


- Socket Head Cap Screw M2x6mm .....x4
- Socket Head Cap Screw M3x6mm .....x2



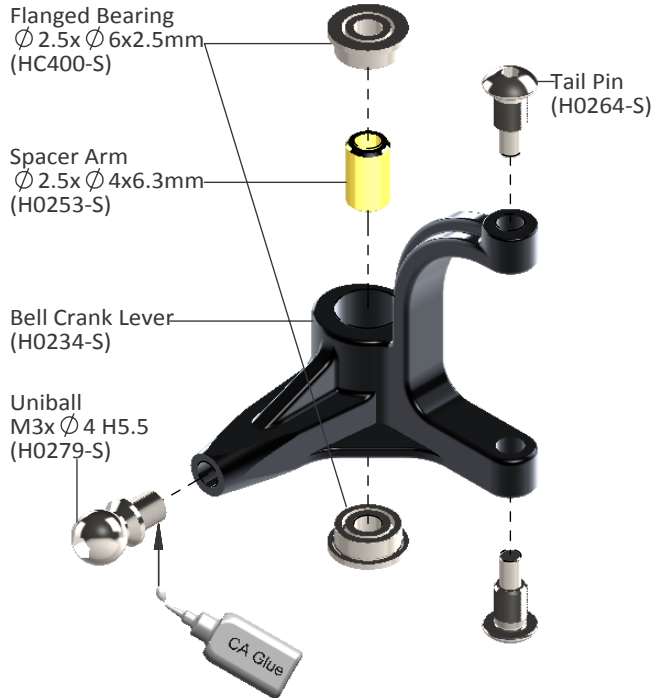
Tray 1, Bags 7.3, 7.4, 7.5, 7.6, 7.7, 7.8

**Tail Side Plate Assembly**

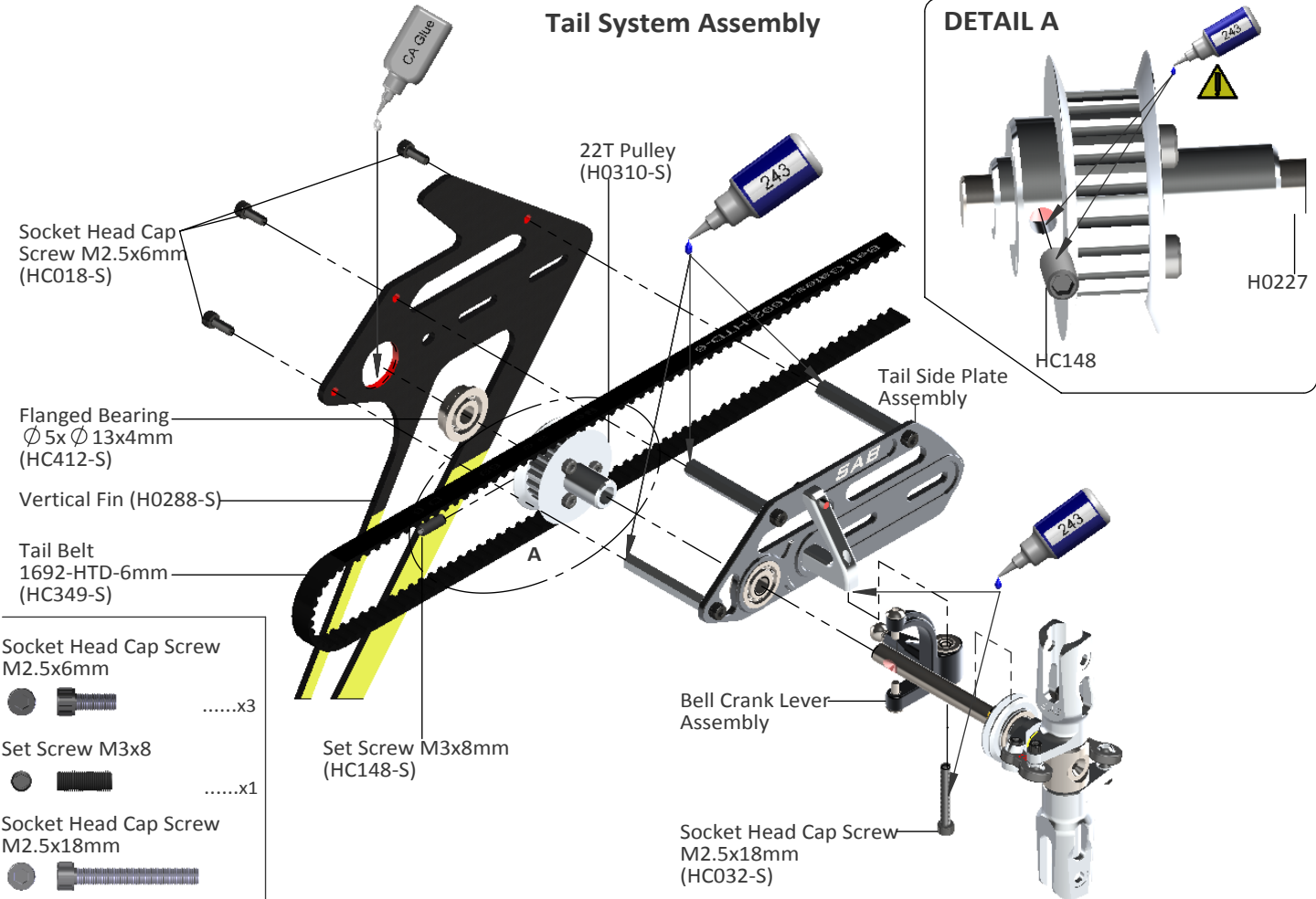


- Socket Head Cap Screw M2.5x6mm .....x3
- Socket Head Cap Screw M2.5x8mm .....x2

**Bell Crank Lever Assembly**



**Tail System Assembly**



- Socket Head Cap Screw M2.5x6mm .....x3
- Set Screw M3x8 .....x1
- Socket Head Cap Screw M2.5x18mm

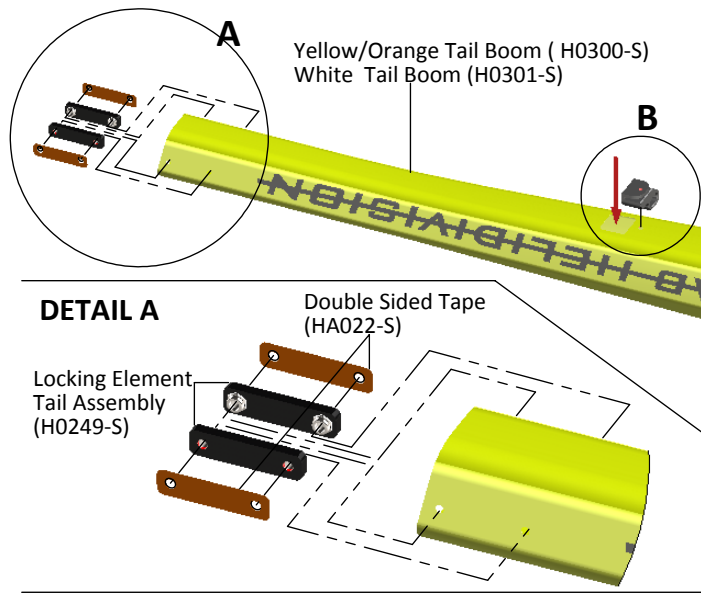




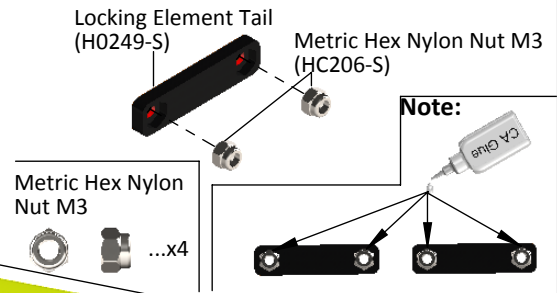
Bags 7.9, 7.10, 7.11

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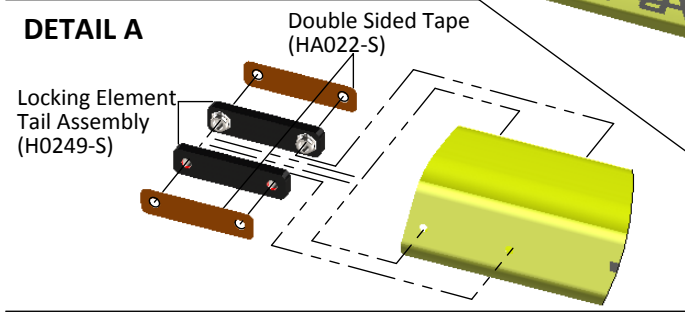
**Tail Boom Assembly**



**Locking Element Tail Assembly ...x2**



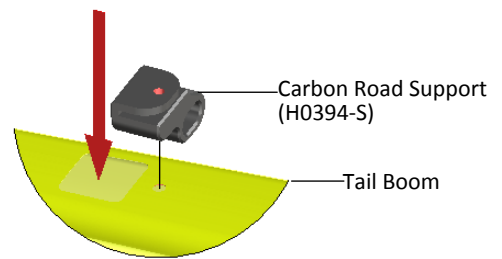
**DETAIL A**



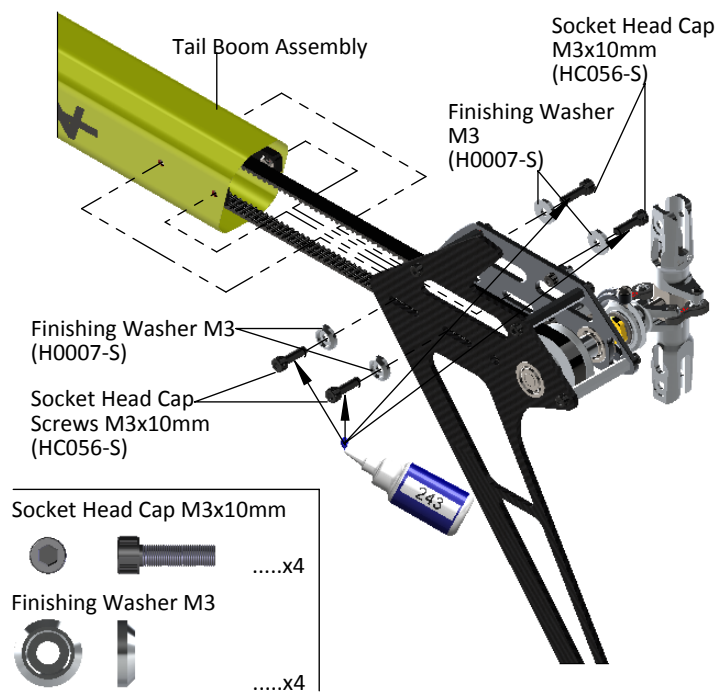
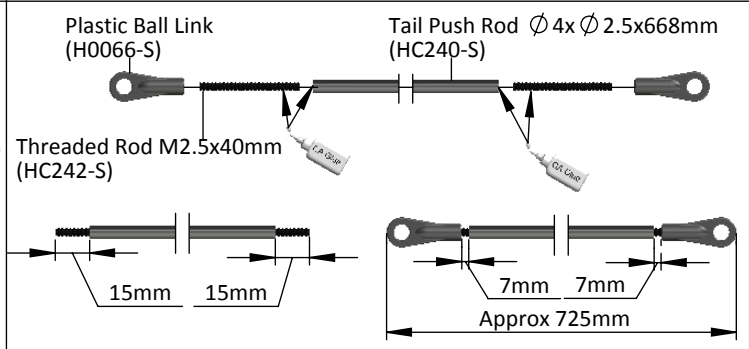
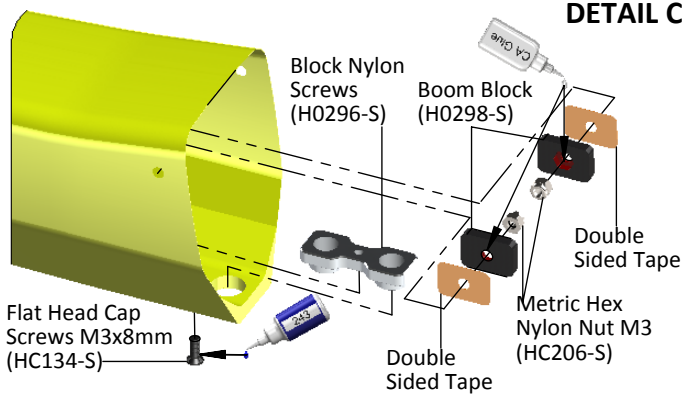
**DETAIL B**

**Install H0394-S On The Boom**

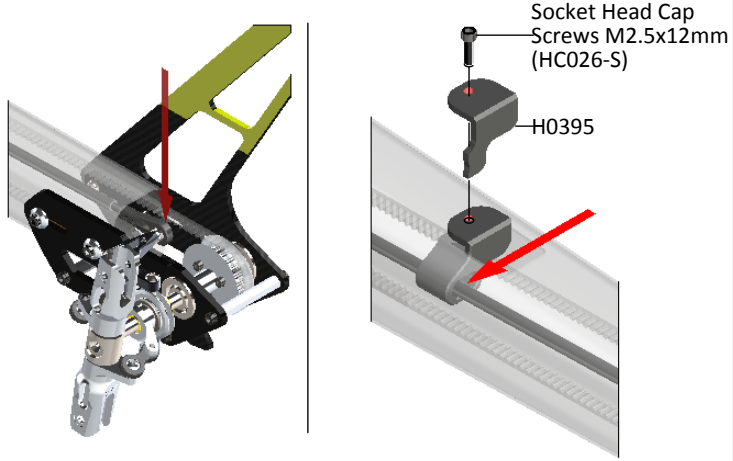
Before mounting H0394 on the boom, we recommend to first tighten the M2.5 screw into the hole to open up the threads a bit. This will allow for easier installation.



**DETAIL C**



- Socket Head Cap M3x10mm .....x4
- Finishing Washer M3 .....x4







### Installation Of The Boom

- Insert the boom in place helping enlarging the frame ( Fig 1,2 ).
- Push the boom forward until the nylon bolts bottom out against the end of the slot on the boom.
- **Tighten the nylon bolts and only after tighten the two M3x10mm screws.**
- For additional safety, install the boom bolt safety lock (Fig 3)

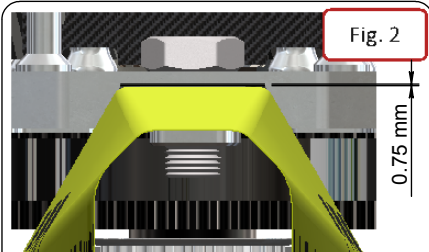


Fig. 2

0.75 mm

**Note:** Between the boom and the aluminum plate, there is a space of around 0.75mm. Look the picture.

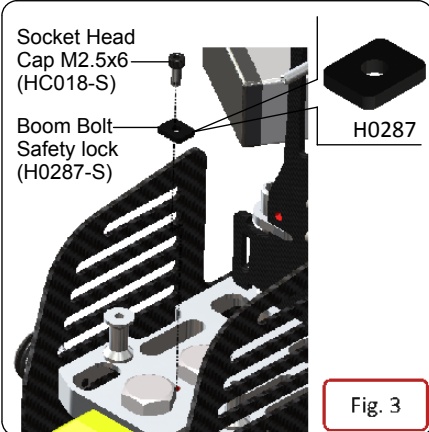


Fig. 3

Socket Head Cap M2.5x6 (HC018-S)

Boom Bolt Safety lock (H0287-S)

H0287

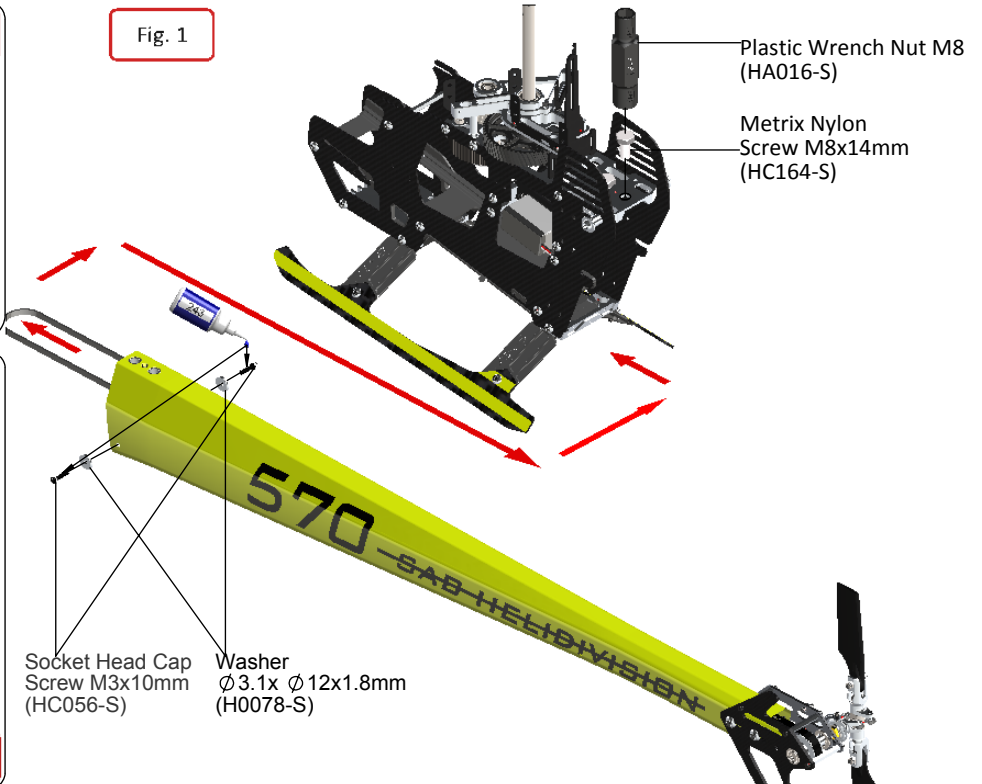


Fig. 1

Plastic Wrench Nut M8 (HA016-S)

Metrix Nylon Screw M8x14mm (HC164-S)

Socket Head Cap Screw M3x10mm (HC056-S) Washer  $\varnothing 3.1 \times \varnothing 12 \times 1.8 \text{mm}$  (H0078-S)

### Tail Belt Tension

- Make sure the boom is assembled and installed correctly.
- Loosen up the tail case by loosening the 4 M3 screws.
- Mount the tail belt on the front pulley making sure the direction of rotation is correct (Fig 4).
- Adjust the belt tension by pulling on the tail case.
- Tighten the 4 M3 screws.
- Check that the tail output shaft is perpendicular to the boom (Fig 5).
- Connect the tail push rod to the tail servo.
- Make sure the tail belt and carbon rod are free, check the belt to ensure it is not twisted.

**NOTE:** To remove the tail boom from the helicopter, it is possible to remove the front tail pulley H0304-S without having to loosen up the tail case. Simply remove the locking screw and pull.

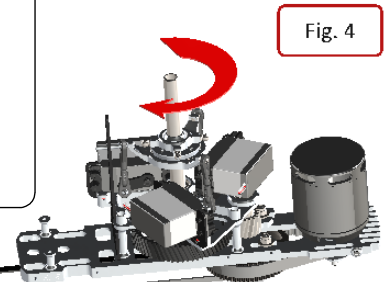


Fig. 4

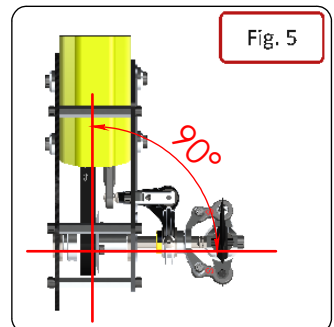


Fig. 5



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Bag 8

**Batteries**

- \* Follow the figure for assembly the battery. You can see 6S solution (fig 1,2,3,4 ) and 12 S solution ( fig 5,6,7,8 ).
- \* With 12S configuration, it is recommended to orient down the wires in the front battery (Fig 7).
- \* Before permanently mounting the batteries onto the battery tray, check the ideal position for the best center of gravity.
- \* Before flight, make sure the battery is locked in place; the battery tray must be inside the slots on both sides!

- \* Battery 6S 5000/5500 mAh. Max dimension 50x60x200mm
- \* Battery 12S 2600/3300 mAh. Max dimension 50x45x280mm

**BATTERY 6S**

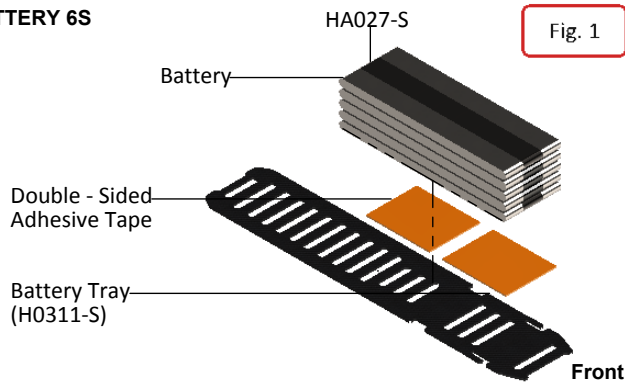


Fig. 1

**BATTERY 12S**

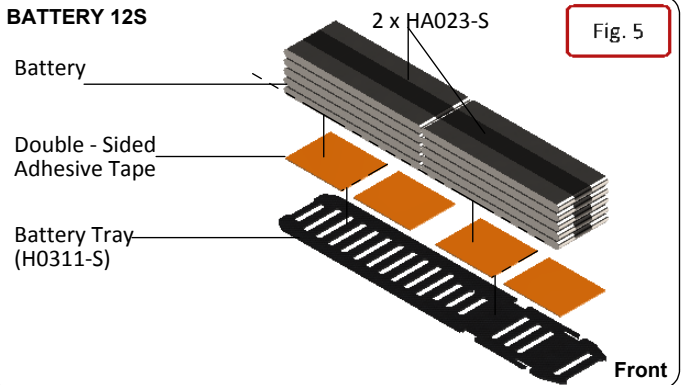


Fig. 5

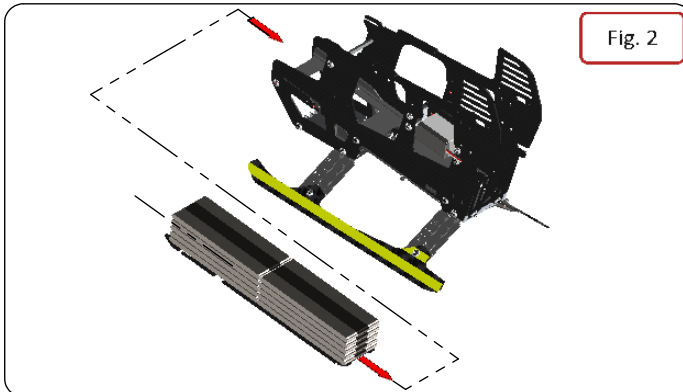


Fig. 2

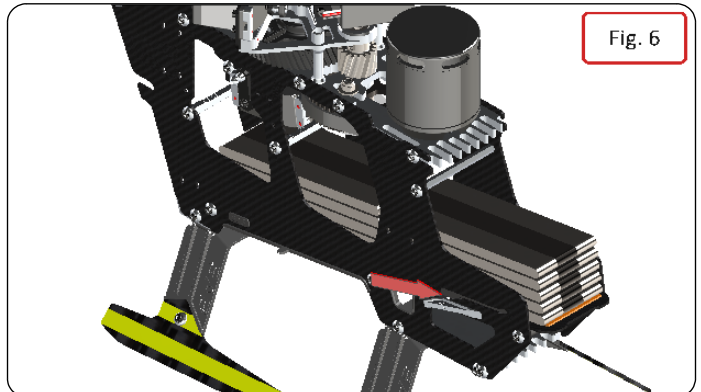


Fig. 6



Fig. 3

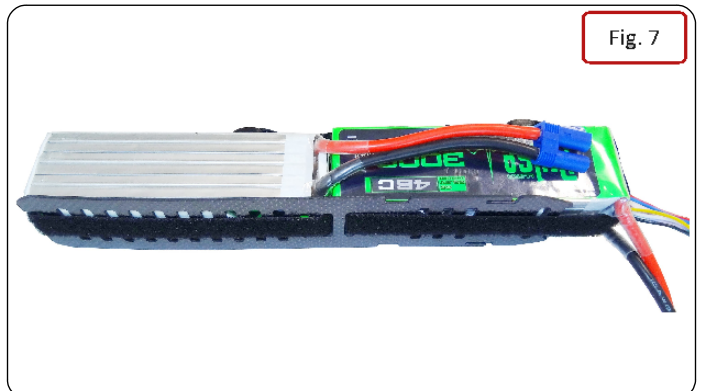


Fig. 7

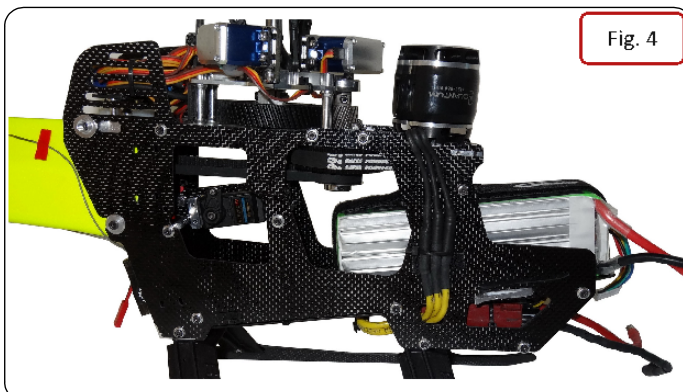


Fig. 4

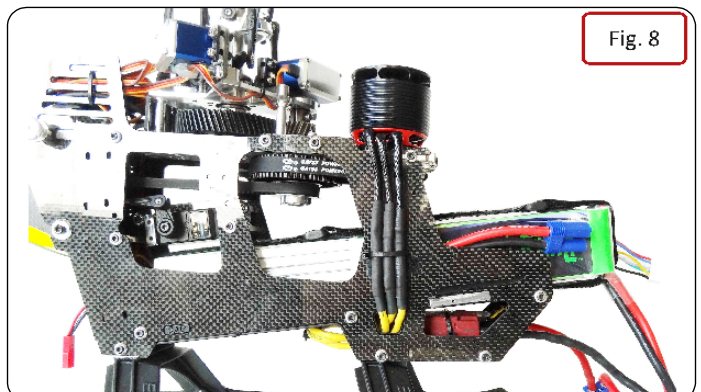


Fig. 8

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Bag 9, Bag 10

**CANOPY**

- The canopy touches the frames on the Goblin, this is normal and expected as it is part of the design. To avoid canopy damage due to high frequency vibration, it is necessary to attach the adhesive foam tape HA006 to the canopy. [Bag 8] (Fig 2).

- Install the canopy grommets [Bag 8] as shown in Figure 2.
- Assemble the Edge Protection with a little super glue. [HA112] Figure.3
- The canopy locks in the front as shown by the arrow in Figure 4 and in the rear by the canopy screws H0248-S [Tray 2] (Fig 1).
- The process of installing the canopy is facilitated following the Figure 5.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

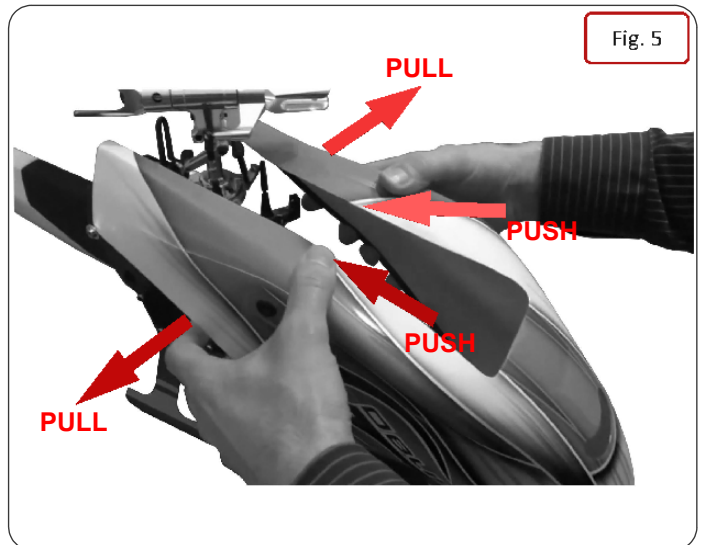


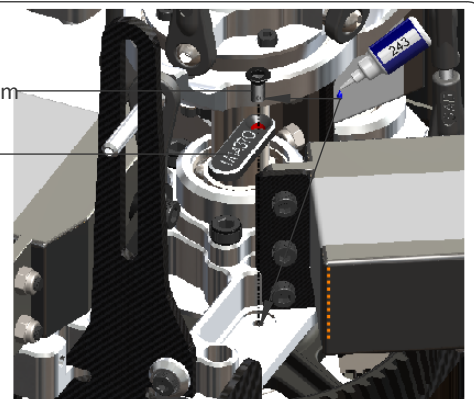
Fig. 5

**Serial Number**

Serial Number Tag

In bag 9, you will find the serial number tag for your helicopter. Install the tag on the servo support plate as shown. Please remember to register your product. ( See page 1 )

- Flat Head Socket
- Cap Screws M2,5x5mm (HC128-S)
- Serial Number (H0286)





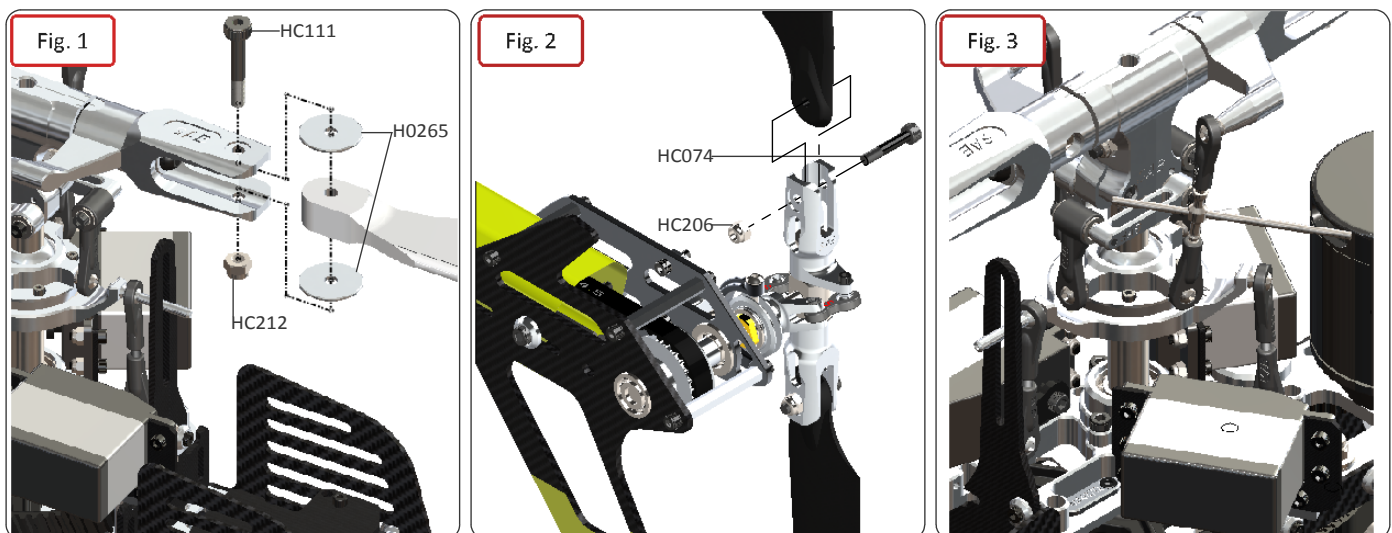
## Operations Before Flight

- \*Set up the transmitter and the flybarless system with utmost care.
- \*It is advisable to test and verify all the settings on the transmitter and flybarless system without the main or tail blades on initially.
- \*Check that all wiring is isolated from the carbon/aluminum parts. It is good practice to protect them in the areas where they are at most risk.

**!** \*Be sure of the gear ratio, verifying carefully the motor pulley in use. The forces acting on the mechanics increase enormously with increased rpm. Although the Goblin can fly at high rpm, for safety reasons we suggest to not exceed 2600 rpm on the Goblin 570.

- \*Check the correct tension of the tail belt, use common sense; the belt should be tight enough, but not too tight.
- \*Fit the main blades and tail blades. (Fig.1 and Fig.2)
- \*Please make sure the main blades are tight on the blade grips, you should be able to violently jerk the head in both directions and the blades should not fold.
- \*Check the collective and cyclic pitch range. For 3D flight, set about +/- 12°-13°.
- \*It is important to check the correct tracking of the main blades.
- \*On the Goblin 570, in order to correct the tracking, adjust the main link rod as shown in Figure 3. The threads are opposite, one side clock-wise and the other side counter clock-wise, this system allows for continuous fine adjustments of the length of the control rod; it is not necessary to detach any of the ball links.
- \*The tail of the Goblin 570 is quite unique in the sense that the tail hub is dampened like the main rotor head. It is normal for the tail slider to be a bit tight in the very beginning as the tail spindle preload is usually a bit high when the helicopter is brand new. The preload will loosen up after a few flights once the o-rings start to wear, it is completely normal for the tail blade grips to have what appears to be "lose dampening" over time.

\*Perform the first flight at a lower head speed than normal, for example 2200 rpm. After this first flight, do a general check of the helicopter. Verify that all screws and bolts are correctly tightened.



## Maintenance

\*On the Goblin 570, some areas to look for wear include:

- Motor belt
- Tail belt
- Dampers
- Main gear and pinion

\*The lifespan of these components varies according to the type of flying. On average it is recommended to check these parts every **100** flights. In some instances, based on wear, these parts should be replaced every **200** flights.

\*The most stressed bearings are definitely those on the tail shaft. Check them frequently. All other parts are not particularly subject to wear.

\*Periodically lubricate the tail slide movement and its linkages as well as the swash plate movement and its linkages.

\*Lubricate the main gear with Dry-Fluid or Tri-Flow Synthetic grease, even though the gear is made of technopolymer, a high mineral based filler, it still requires some lubrication.

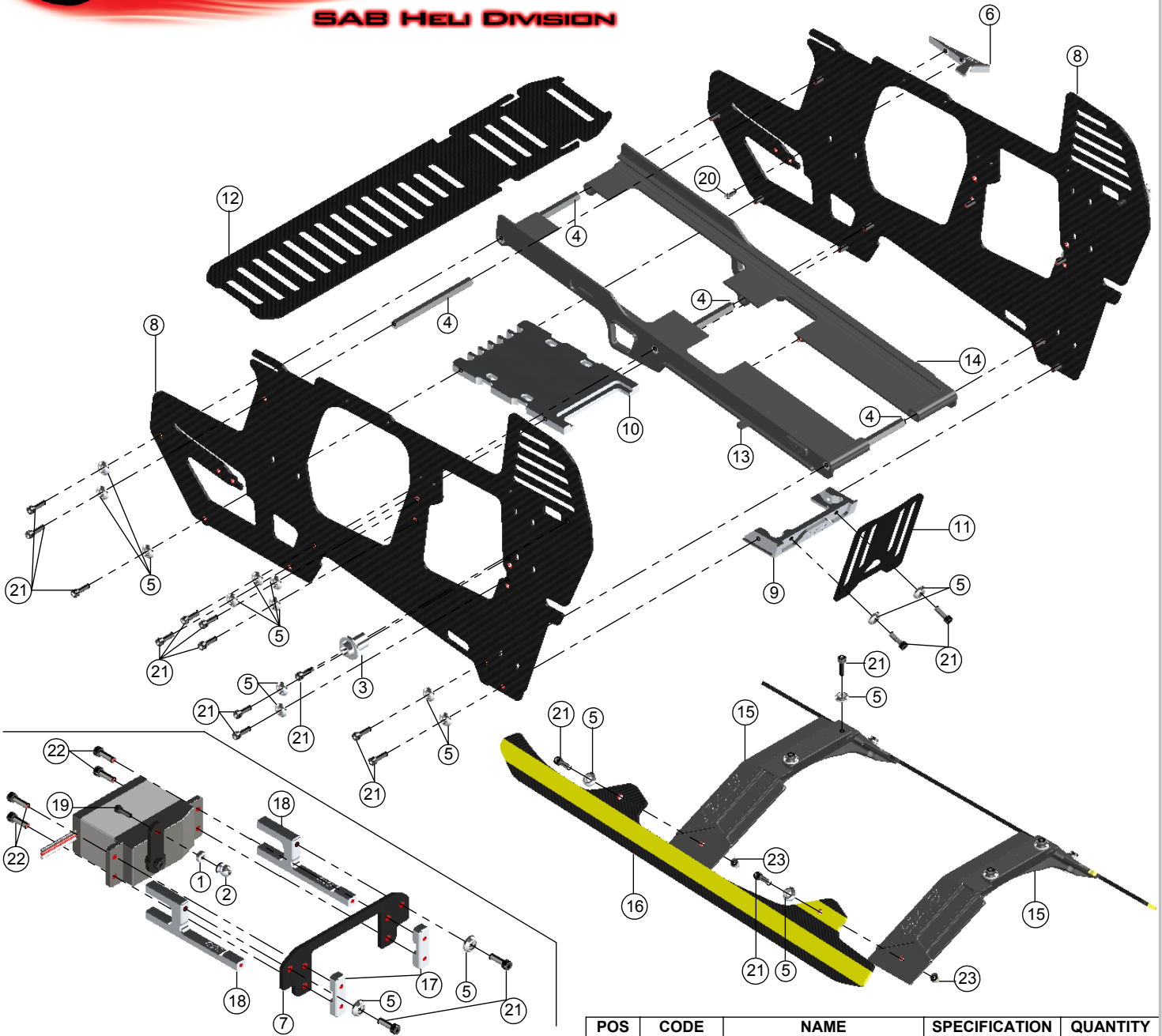
\*To ensure safety you should do a general inspection of the helicopter after each flight. You should check:

- Proper belt tension (motor belt and tail belt).
- Proper isolation of the wires from the carbon and aluminum parts.
- All screws remain tight.

**After a crash, please inspect the carbon servo mounts H0308 to make sure they are not cracked or weakened. Failure to check and detect a possible crack could result in a future crash if a carbon servo mount breaks in flight.**



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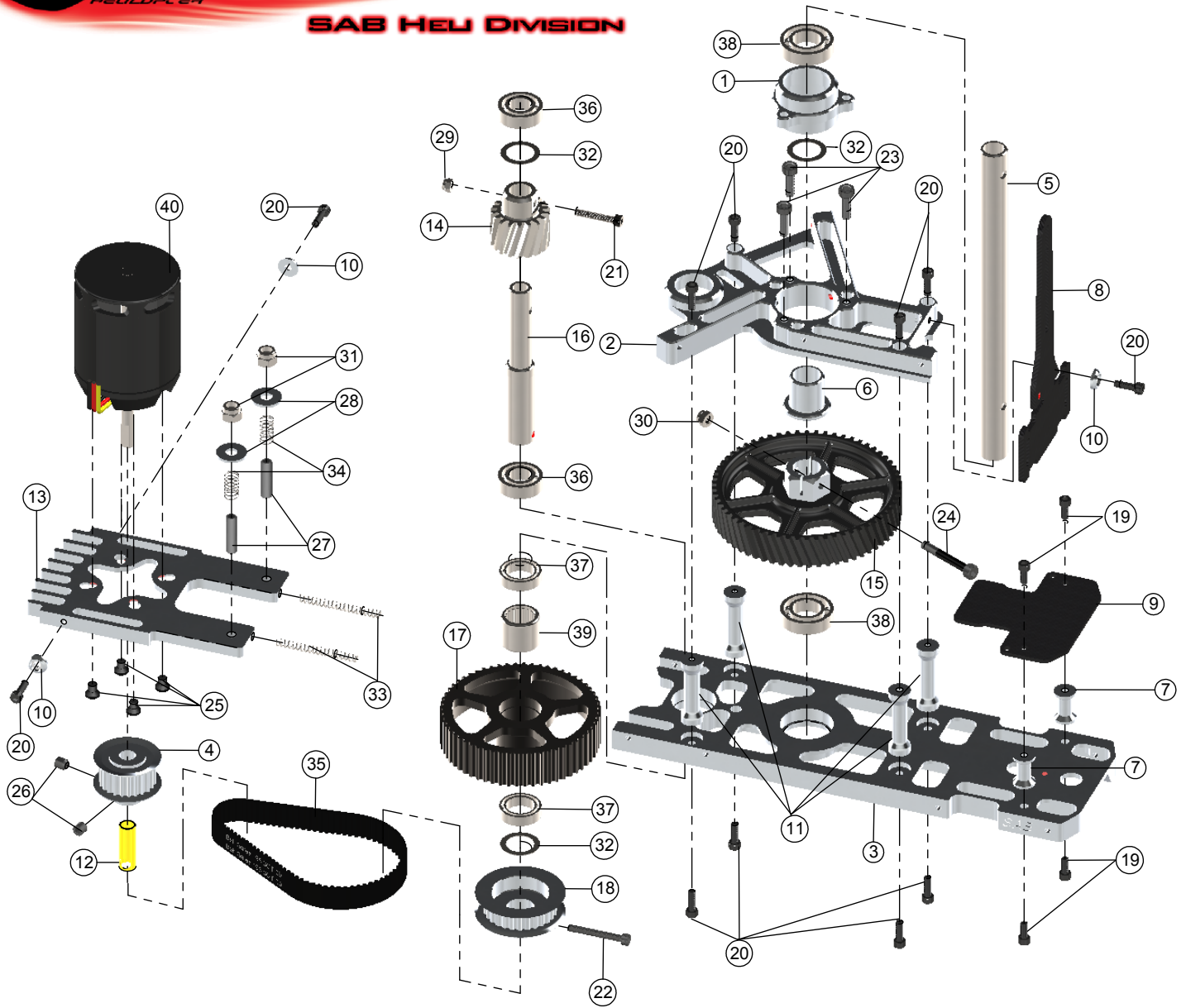


POS	CODE	NAME	SPECIFICATION	QUANTITY
1	H0031	Uniball Spacer	Aluminum	1
2	H0064	Uniball	M2 Ø5h6	1
3	H0217	Canopy Positioner	Aluminum	2
4	H0239	Aluminum Spacer 54mm	Aluminum	3
5	H0255	Finishing Washers	M2.5	30
6	H0256	Battery Block	Aluminum	1
7	H0289	CF Tail Servo Support	Carbon Fiber	1
8	H0290	Main Frame	Carbon Fiber	2
9	H0306	Landing Gear Mount Rear	Aluminum	1
10	H0307	Landing Gear Mount Front	Aluminum	1
11	H0309	BEC/RX Support	Carbon Fiber	1
12	H0311	Battery Tray	Carbon Fiber	1
13	H0312-A	Battery Support SX	Plastic	1
14	H0312-B	Battery Support DX	Plastic	1
15	H0350	Landing Gear Supports	Plastic	2
16	H0385	Yellow Landing Gear White Landing Gear	Carbon Fiber	2
17	H0392	Tail Servo Block	Aluminum	2
18	H0393	Tail Servo Mount	Aluminum	2
19	HC004	Socket Head Cap Screws	M2x6mm	1
20	HC005	Button Head Cap Screws	M2x5mm	1
21	HC020	Socket Head Cap Screws	M2.5x8mm	34
22	HC022	Socket Head Cap Screws	M2.5x10mm	4
23	HC200	Metrix Hex Nylon Nut	M2.5	4





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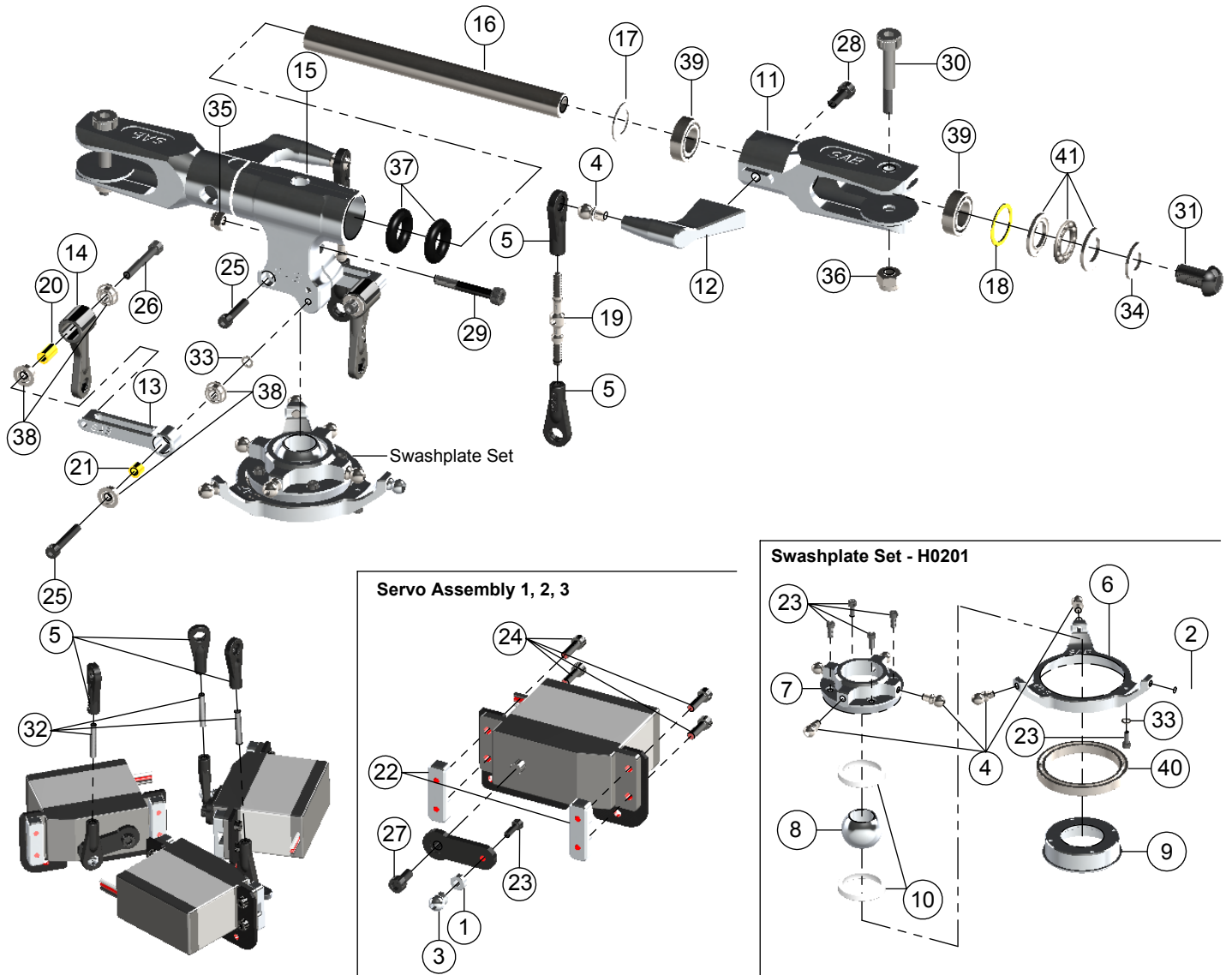
TRANSMISSION ASSEMBLY				
POS	COD	Name	Specification	Quantity
1	H0207	Bearing Support	Aluminum	1
2	H0208	Servo Support	Aluminum	1
3	H0212	Main Structure	Aluminum	1
4	H0215	Pulley	21T	1
5	H0222	Main Shaft	Steel	1
6	H0223	Spacer	Ø 10x Ø 16x14.6mm	1
7	H0224	Sensor Suport	Aluminum	2
8	H0401	SwashPlate Anti-Rotation Guide	Carbon Fiber	1
9	H0250	FBL Support	Carbon Fiber	1
10	H0255	Finishing Washer	M2.5	3
11	H0263	Column	Aluminum	4
12	H0266	Bush	Ø 5x Ø 6x18mm	1
13	H0291	Motor Support	Aluminum	1
14	H0292	Pinion	18T	1
15	H0293	Main Gear	62T	1
16	H0294	Secondary Shaft	Steel	1
17	H0295	Pulley	60T	1
18	H0304	Pulley	28T	1
19	HC018	Socket Head Cap Screws	M2.5x6mm	4
20	HC020	Socket Head Cap Screws	M2.5x8mm	11

TRANSMISSION ASSEMBLY				
POS	COD	Name	Specification	Quantity
21	HC028	Socket Head Cap Screws	M2.5x15mm	1
22	HC033	Socket Head Cap Shouldered	M2.5x19mm	1
23	HC056	Socket Head Cap Screws	M3x10mm	3
24	HC079	Socket Head Cap Screw Shouldered	M3x18mm	1
25	HC132	Flat Head Socket Cap	M3x5mm	4
26	HC152	Cone Point Set Screws	M4x4mm	2
27	HC154	Cup Point Set Screws	M4x15mm	2
28	HC184	Washer	Ø 4.3x Ø 11x1mm	2
29	HC200	Metrix Hex Nylon Nut	M2.5xH3.5	1
30	HC206	Metrix Hex Nylon Nut	M3	1
31	HC212	Metrix Hex Nylon Nut	M4H5	2
32	HC234	Washer	Ø 10x Ø 16x0.1mm	3
33	HC311	Spring	de 3/ df 0.53 / LL35	2
34	HC316	Spring	de 5/ df 0.3 / LL6	2
35	HC346	Motor Belt Gates 240		1
36	HC419	Bearing	Ø 8x Ø 16x5mm	2
37	HC420	Bearing	Ø 10x Ø 15x4mm	2
38	HC422	Bearing	Ø 10x Ø 19x5mm	2
39	HC442	One Way Bearing	Ø 10x Ø 14x12mm	1
40		Motor		1

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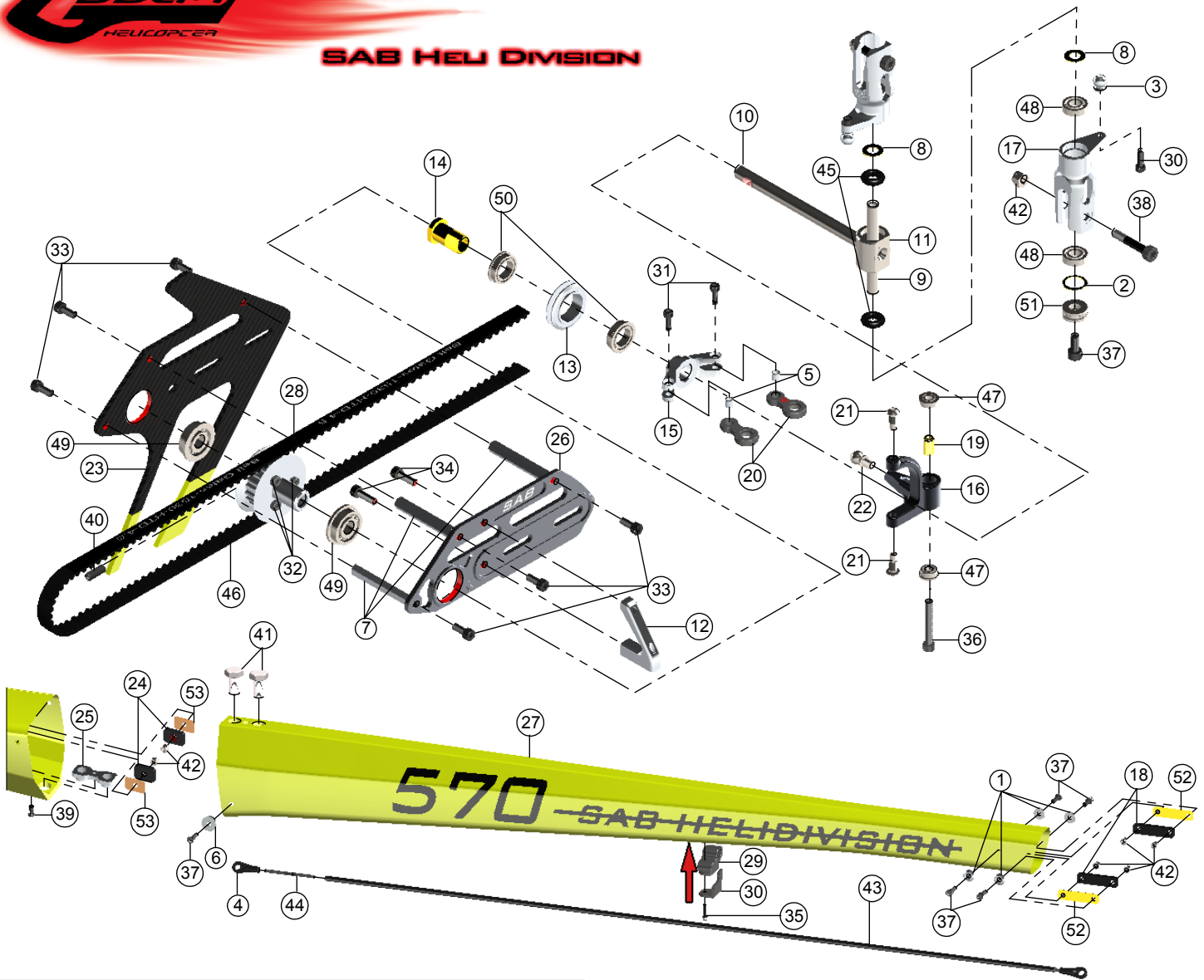


Head System				
POS	COD	Name	Specification	Quantity
1	H0031	Uniball Spacers	∅2 x ∅5 x 2mm	2
2	H0063	Uniball	M3 x 4 ∅5 H18	1
3	H0064	Uniball	M2.5 ∅5 H6	1
4	H0065	Uniball	M3 x 4 ∅5 H3	8
5	H0066	Plastic Ball Linkages	Plastic	10
6	H0201-1	Swashplate 01	Aluminum	1
7	H0201-2	Swashplate 02	Aluminum	1
8	H0201-3	Swashplate 03	Aluminum	1
9	H0201-4	Swashplate 04	Aluminum	1
10	H0201-5	Swashplate 05	Aluminum	2
11	H0202	Blade Grips	Aluminum	2
12	H0203	Blade Grip Arms	Aluminum	2
13	H0204	Radius Arms	Aluminum	2
14	H0205	Unibal Radius Arms	Plastic	2
15	H0206	Center Hub	Aluminum	1
16	H0213	Spindle Shaft	∅8 x 89mm	1
17	H0225	Spacers	∅8 x ∅12.5x0.75mm	2
18	H0226	Spacers	∅11 x ∅13.8 x0.5mm	2
19	H0237	Linkage Rod	M2.5 x 33mm	2
20	H0253	Spacer Arm	∅2.5 x ∅4 x 6.3mm	2
21	H0254	Spacer Arm	∅2.5 x ∅4 x 3mm	2
22	H0392	Servo Block	Aluminum	6

Head System				
POS	COD	Name	Specification	Quantity
23	HC004	Socket Head Cap Screws	M2 x 6mm	6
24	HC022	Socket Head Cap Screws	M2.5 x 10mm	4
25	HC026	Socket Head Cap Screws	M2.5 x 12mm	2
26	HC032	Socket Head Cap Screws	M2.5 x 18mm	2
27	HC044	Socket Head Cap Screws	M3 x 6mm	3
28	HC050	Socket Head Cap Screws	M3 x 8mm	2
29	HC082	Socket Head Cap Screw Shouldered	M3 x 20mm	1
30	HC111	Socket Head Cap Screw Shouldered	M4 x 24mm	2
31	HC122	Button Head Cap Screws	M6 x 10mm	2
32	HC146	Set Screws	M2.5 x 15mm	3
33	HC172	Washers	∅2.5 x ∅4 x 0.3mm	3
34	HC193	Washers	∅6.1 x ∅12 x 1mm	2
35	HC206	Metric Hex Nylon Nut	M3 H4	1
36	HC212	Metric Hex Nylon Nut	M4 H5	2
37	HC330	O-rings		4
38	HC400	Flanged Bearings	∅2.5 x ∅6 x 2.5mm	8
39	HC417	Bearings	∅8 x ∅14 x 4mm	4
40	HC430	Bearings	∅30 x ∅37 x 4mm	1
41	HC437	Thrust Bearings	∅8 x ∅14 x 4mm	2



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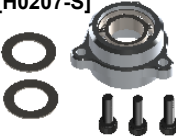
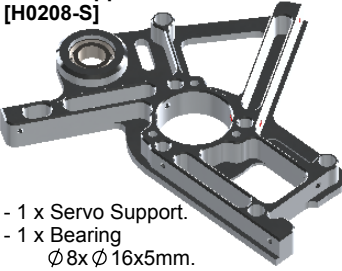
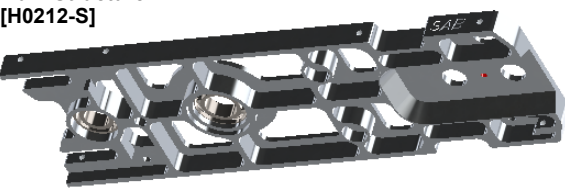

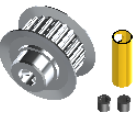
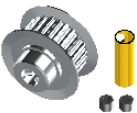
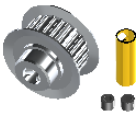

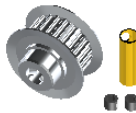

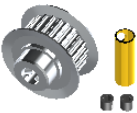
TAIL SYSTEM				
POS	COD	Name	Specification	Quantity
1	H0007	Finishing Washer M3	Aluminum	4
2	H0062	Spacer	∅7 x ∅9 x 0.5mm	2
3	H0064	Uniball	M2 ∅5H6	2
4	H0066	Plastic Ball Linkages	Plastic	2
5	H0076	Spacer	∅2 x ∅3 x 3mm	2
6	H0078	Spacer	∅3.1 x ∅12 x 1.8mm	2
7	H0216	Tail Case Spacer	Aluminum	3
8	H0219	Spacer	∅4 x ∅6.9 x 0.5mm	2
9	H0220	Spindle Shaft	Carbon Steel	1
10	H0227	Tail Shaft	Carbon Steel	1
11	H0228	Tail Rotor Hub	Aluminum	1
12	H0229	Bell Crank Support	Aluminum	1
13	H0231	Tail Pitch Slider 01	Aluminum	1
14	H0232	Tail Pitch Slider 02	Aluminum	1
15	H0233	Tail Pitch Slider 03	Aluminum	1
16	H0234	Bell Crank Lever	Plastic	1
17	H0236	Tail Blade Grips	Aluminum	2
18	H0249	Locking Element Tail	Carbon Fiber	2
19	H0253	Spacer Arm	∅2.5 x ∅4 x 6.3mm	1
20	H0261	Tail Pitch Slider links	Plastic	2
21	H0264	Tail Pins	Aluminum	2
22	H0279	Uniball	M3x4 ∅5H5	1
23	H0288	Yellow/White Vertical Fin	Carbon Fiber	1
24	H0289	Boom Block	Carbon Fiber	2
25	H0296	Block Nylon Screws	Aluminum	1
26	H0297	Tail Side Plate	Aluminum	1
27	H0300	Yellow Tail Boom	Carbon Fiber	1
	H0301	White Tail Boom		

TAIL SYSTEM				
POS	COD	Name	Specification	Quantity
28	H0310	Pulley	22T	1
29	H0394	Carbon Road Support	Plastic	1
30	H0395	Carbon Road Orientation	Plastic	1
31	HC004	Socket Head Cap Screws	M2 x 6mm	4
32	HC014	Socket Head Cap Screws	M2 x 12mm	3
33	HC018	Socket Head Cap Screws	M2.5 x 6mm	6
34	HC020	Socket Head Cap Screws	M2.5 x 8mm	2
35	HC026	Socket Head Cap Screws	M2.5 x 12mm	1
36	HC032	Socket Head Cap Screws	M2.5 x 18mm	1
37	HC056	Socket Head Cap Screws	M3 x 10mm	6
38	HC074	Socket Head Shouldered	M3 x 16mm	2
39	HC134	Flat Head Cap Screw	M3 x 8mm	1
40	HC148	Set Screw	M3 x 8mm	1
41	HC164	Nylon Screw	M8x14mm	2
42	HC206	Metric Hex Nylon Nuts	M3	7
43	HC240	Carbon Rod	∅2.5x ∅4 x668mm	1
44	HC242	Set Screws	M2.5 x 40mm	2
45	HC334	Orings		2
46	HC349	Bell Gates	1692-HTD-6	1
47	HC400	Flanged Bearings	∅2.5 x ∅6 x 2.5mm	2
48	HC403	Bearings	∅4 x ∅9 x 2.5mm	4
49	HC412	Flanged Bearings	∅5 x ∅13 x 4mm	2
50	HC416	Flanged Bearings	∅7 x ∅11 x 3mm	2
51	HC434	Thrust Bearings	∅4 x ∅9 x 4mm	2
52	HA022	Double Sided Tapes		2
53	HA028	Double Sided Tapes		2



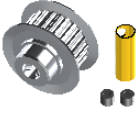

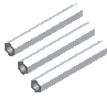






















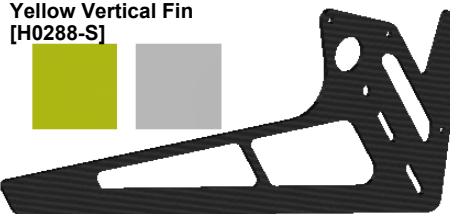
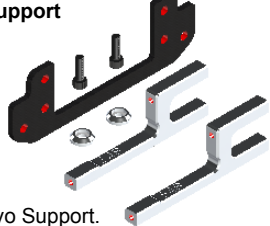


**SAB HELI DIVISION**

<p><b>Finishing Washer M3 [H0007-S]</b></p>  <p>- 10 x Finishing Washer M3.</p>	<p><b>Spacer Ø7 X Ø9 X 0,5 [H0062-S]</b></p>  <p>- 4 x Spacer Ø7xØ9x0,5mm.</p>	<p><b>Uniball Goblin M3Ø5H18 [H0063-S]</b></p>  <p>- 2 x Uniball Goblin M3Ø5H18.</p>	<p><b>Uniball Goblin M2Ø5H3.5 [H0064-S]</b></p>  <p>- 5 x Uniball Goblin M2Ø5H3.5 - 5 x Uniball Spacer. - 5 x Socket Head Cap Screw M2x8mm. - 5 x Socket Head Cap Screw M2x6mm.</p>	<p><b>Uniball Goblin M3Ø5H3.5 [H0065-S]</b></p>  <p>- 5 x Uniball Goblin M3Ø5H3.5.</p>
<p><b>Plastic Ball Linkages [H0066-S]</b></p>  <p>- 10 x Plastic Ball Linkages.</p>	<p><b>Carbon Servo Spacer [H0075-S]</b></p>  <p>- 10 x Carbon Servo Spacer.</p>	<p><b>Washer Ø3,1xØ12x1.8 [H0078-S]</b></p>  <p>- 4 x Washer Ø3,1xØ12x1.8.</p>	<p><b>Bush One Way Bearing [H0110-S]</b></p>  <p>- 4 x Bush One Way Bearing.</p>	<p><b>SwashPlate [H0201-S]</b></p>  <p>- 1 x SwashPlate Assembly. - 1 x Uniball M3x4 Ø5H18. - 6 x Uniball M3x4 Ø5H3. - 7 x Socket Head Cap M2x5. - 1 x Bearing Rad Ø30 Ø37x4.</p>
<p><b>Blade Grip [H0202-S]</b></p>  <p>- 2 x Main Blade Grip. - 2 x Spacer Ø11xØ13.8x0.5mm. - 4 x Bearing Ø8xØ14x4mm. - 2 x Thrust Bearing Ø8xØ14x4mm.</p>	<p><b>Blade Grip Arm [H0203-S]</b></p>  <p>- 2 x Main Blade Arm. - 2 x Socket Head Cap Screw M3x8mm. - 2 x Uniball M3 Ø4H3.</p>		<p><b>Center Hub [H0206-S]</b></p>  <p>- 1 x Center Hub. - 2 x Socket Head Cap Screw M2.5x12mm. - 1 x Socket Head Cap Screw M3x20mm. - 1 x Metrix Hex Nylon Nut M3.</p>	
<p><b>Radius Arm HPS [H0204-S]</b></p>  <p>- 2 x Radius Arm. - 2 x Spacer Arm 2.5x4x6.3mm. - 2 x Spacer Arm 2.5x4x3mm. - 2 x Uniball Radius Arm. - 8 x Flanged Bearing Ø2.5xØ6x2.5. - 2 x Washer 2.5x4x0.3mm. - 2 x Socket Head Cap Screw M2.5x15. - 2 x Socket Head Cap Screw M2.5x18.</p>	<p><b>Radius Plastic Arm [H0205-S]</b></p>  <p>- 2 x Radius Plastic Arm.</p>	<p><b>Bearing Support [H0207-S]</b></p>  <p>- 1 x Bearing Support. - 1 x Bearing Ø10xØ19x5. - 3 x Socket Head Cap Screws M3x10mm. - 2 x Washer Ø10xØ16x0.1.</p>	<p><b>Servo Support [H0208-S]</b></p>  <p>- 1 x Servo Support. - 1 x Bearing Ø8xØ16x5mm.</p>	
<p><b>Main Structure [H0212-S]</b></p>  <p>- 1 x Main Structure. - 1 x Bearing Ø8xØ16x5mm. - 1 x Bearing Ø10xØ19x5mm.</p>	<p><b>Spindle [H0213-S]</b></p>  <p>- 1 x Spindle. - 2 x Button Head Cap Screw M6x10mm. - 2 x Washers Ø6.1xØ12x1mm.</p>	<p><b>16T Pulley [H0215-16-S]</b></p>  <p>- 1 x 16T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>	<p><b>17T Pulley [H0215-17-S]</b></p>  <p>- 1 x 17T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>	
<p><b>18T Pulley [H0215-18-S]</b></p>  <p>- 1 x 18T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>	<p><b>19T Pulley [H0215-19-S]</b></p>  <p>- 1 x 19T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>	<p><b>20T Pulley [H0215-20-S]</b></p>  <p>- 1 x 20T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>	<p><b>21T Pulley [H0215-21-S]</b></p>  <p>- 1 x 21T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>	<p><b>22T Pulley [H0215-22-S]</b></p>  <p>- 1 x 22T Pulley. - 2 x Set Screw M4x4mm. - 1 x Bushing Ø5xØ6x18mm.</p>



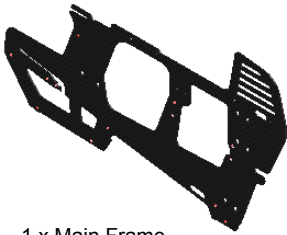
**SAB HELI DIVISION**

<p><b>23T Pulley [H0215-23-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x 23T Pulley.</li> <li>- 2 x Set Screw M4x4mm.</li> <li>- 1 x Bushing <math>\phi 5 \times \phi 6 \times 18 \text{mm}</math>.</li> </ul>	<p><b>24T Pulley [H0215-24-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x 24T Pulley.</li> <li>- 2 x Set Screw M4x4mm.</li> <li>- 1 x Bushing <math>\phi 5 \times \phi 6 \times 18 \text{mm}</math>.</li> </ul>	<p><b>Spacer 26mm [H0216-S]</b></p>  <ul style="list-style-type: none"> <li>- 3 x Spacer 26mm.</li> </ul>	<p><b>Canopy Positioner [H0217-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Canopy Positioner.</li> </ul>	<p><b>Tail Spindle [H0220-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Tail Spindle.</li> <li>- 2 x Socket Head Cap Screw M3x6mm.</li> </ul>	
<p><b>Main Shaft [H0222-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Main Shaft.</li> <li>- 2 x Metric Hex Nylon Nut M3H4.</li> <li>- 1 x Socket Head Cap Shoulder M3x20mm.</li> <li>- 1 x Socket Head Cap Shoulder M3x22mm.</li> </ul>	<p><b>Spacer Main Shaft [H0223-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Spacer Main Shaft.</li> <li>- 4 x Washer <math>\phi 10 \times \phi 16 \times 0.1 \text{mm}</math>.</li> </ul>	<p><b>Sensor Support [H0224-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Sensor Support.</li> <li>- 1 x FBL Support.</li> <li>- 2 x Socket Head Cap Screw M2.5x8mm.</li> </ul>	<p><b>Spacer <math>\phi 8 \times \phi 12,5 \times 0,5</math> [H0225-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Spacer <math>\phi 8 \times \phi 12,5 \times 0,5</math>.</li> </ul>		
<p><b>Tail Rotor Shaft [H0227-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Tail Rotor Shaft.</li> <li>- 1 x Set Screw M3x8mm.</li> <li>- 1 x Tail Hub.</li> </ul>	<p><b>Bell Crank Support [H0229-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Bell Crank Support.</li> <li>- 2 x Socket Head Cap Screw M2x8mm.</li> </ul>	<p><b>Tail Pitch Slider [H0233-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Tail Pitch Slider 01.</li> <li>- 1 x Tail Pitch Slider 02.</li> <li>- 1 x Tail Pitch Slider 03.</li> <li>- 2 x Flanged Bearing <math>\phi 7 \times \phi 11 \times 3 \text{mm}</math>.</li> </ul>	<p><b>Bell Crank Level [H0234-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Bell Crank level.</li> <li>- 2 x Tail Pin.</li> <li>- 2 x Flanged Bearing <math>\phi 2.5 \times \phi 6 \times 2.5 \text{mm}</math>.</li> <li>- 1 x Spacer Arm <math>\phi 2.5 \times \phi 4 \times 6.3 \text{mm}</math>.</li> <li>- 1 x Socket Head Cap Screws M2.5x18.</li> <li>- 1 x Uniball M3x 4 H5.</li> </ul>		
<p><b>Tail Blade Grip [H0236-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Tail Blade Grip.</li> <li>- 4 x Bearing <math>\phi 4 \times \phi 9 \times 2.5 \text{mm}</math>.</li> <li>- 2 x Spacer <math>\phi 7 \times \phi 9 \times 0.5 \text{mm}</math>.</li> <li>- 2 x Thrust Bearing <math>\phi 4 \times \phi 9 \times 4 \text{mm}</math>.</li> <li>- 2 x Socket Head Cap Screw M3x6mm.</li> <li>- 2 x Button Head Cap Screw M2x8mm.</li> </ul>	<p><b>Linkage HPS [H0237-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Linkage Rod M2.5x33mm.</li> <li>- 4 x Linkage Ball Link.</li> </ul>	<p><b>Spacer 54mm [H0239-S]</b></p>  <ul style="list-style-type: none"> <li>- 6 x Spacer 54mm.</li> </ul>	<p><b>Anti-Rotation Guide [H0401-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Anti-Rotation Guide.</li> <li>- 1 x Socket Head Cap Screw M2.5x8mm.</li> <li>- 1 x Finishing Washer M2.5.</li> </ul>		
<p><b>Canopy Locking [H0248-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Canopy Locking.</li> </ul>	<p><b>Locking Element Tail [H0249-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Locking Element Tail.</li> <li>- 4 x Metric Hex Nylon Nut M3.</li> <li>- 4 x Socket Head Cap Screw M3x10mm.</li> <li>- 2 x Double Side Tape.</li> </ul>	<p><b>Finishing Washer [H0255-S]</b></p>  <ul style="list-style-type: none"> <li>- 10 x Finishing Washer M2.5.</li> </ul>	<p><b>Battery Block [H0256-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Battery Block.</li> <li>- 1 x Socket Head Cap Screw M2.5x5mm.</li> </ul>	<p><b>Tail Linkage [H0261-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Tail Linkage.</li> <li>- 2 x Spacer.</li> <li>- 2 x Socket Head Cap Screws M2x6mm.</li> </ul>	<p><b>Column [H0263-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Column.</li> </ul>
<p><b>Spacer <math>\phi 4 \times \phi 18 \times 1</math> [H0265-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Spacer <math>\phi 4 \times \phi 18 \times 1 \text{mm}</math>.</li> </ul>	<p><b>Spacer Set [H0287-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Tail Grip Link Bushing.</li> <li>- 2 x Spacer <math>\phi 4 \times \phi 7,50 \times 0,5</math>.</li> <li>- 2 x Spacer <math>\phi 8 \times \phi 12,5 \times 0,5</math>.</li> <li>- 2 x Spacer <math>\phi 11 \times \phi 13,8 \times 0,5</math>.</li> <li>- 2 x Spacer Arm 2,5x4 x6,3.</li> <li>- 2 x Spacer Arm 2,5x4x3.</li> </ul>	<p><b>Yellow Vertical Fin [H0288-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Vertical Fin.</li> <li>- 1 x Sticker Yellow.</li> <li>- 1 x Sticker White.</li> </ul>	<p><b>CF Tail Servo Support [H0289-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x CF Tail Servo Support.</li> <li>- 2 x Aluminum Tail Servo Support.</li> <li>- 2 x Socket Head Cap Screw M2.5x8mm.</li> <li>- 2 x Finishing Washer M2.5.</li> </ul>		



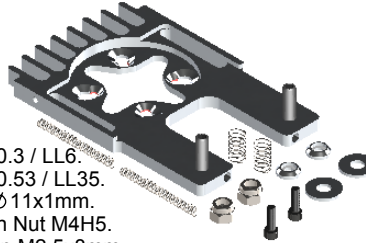
**SAB HELI DIVISION**

**Main Frame  
[H0290-S]**



- 1 x Main Frame.

**Motor Support  
[H0291-S]**



- 1 x Motor Support.
- 2 x Spring de 5 / df 0.3 / LL6.
- 2 x Spring de 3 / df 0.53 / LL35.
- 2 x Washer  $\varnothing 4.3x\varnothing 11x11mm$ .
- 2 x Metrix Hex Nylon Nut M4H5.
- 2 x Socket Head Cap M2.5x8mm.
- 2 x Finishing Washer M2.5mm.
- 2 x Set Screw M4x15mm.

**Heavy Duty Pinion  
[H0292-S]**



- 1 x 18T Pinion.
- 1 x Socket Head Cap Screw M2.5x15mm.
- 1 x Metric Hex Nylon Nut M2.5H3.5.
- 1 x Washer  $\varnothing 8x\varnothing 14x0.2mm$ .

**Heavy Duty Main Gear  
[H0293-S]**



- 1 x 62T Main Gear .
- 1 x Socket Head Cap Screw Shouldered M3x18mm.
- 1 x Metric Hex Nylon Nut M3.

**Secondary Shaft  
[H0294-S]**



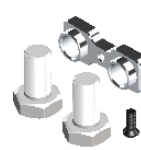
- 1 x Secondary Shaft.
- 1 x Socket Head Cap Screw M2.5x15mm.
- 1 x Socket Head Cap Screw M2.5x19mm.
- 1 x Metrix Hex Nylon Nut M2.5H3.5.
- 1 x Washer  $\varnothing 8x\varnothing 14x0.2$ .

**One Way Pulley  
[H0295-S]**



- 1 x One Way Pulley.
- 1 x One Way Bearing  $\varnothing 10x\varnothing 14x12mm$ .
- 2 x Bearing  $\varnothing 10x\varnothing 15x4mm$ .
- 2 x Washer  $\varnothing 10x\varnothing 14x0.1mm$ .

**Block Nylon Screws  
[H0296-S]**



- 1 x Block Nylon Screws.
- 1 x Flat Head Cap Screw M3x8.
- 2 x Nylon Screws M8x14.

**Tail Side Plate  
[H0297-S]**



- 1 x Tail Side Plate.

**Yellow Tail Boom  
[H0300-S]**



- 1 x Yellow Tail Boom.
- 2 x Nylon Screw M8x14mm.
- 2 x Double Side Tape ( HA022).
- 2 x Washer  $\varnothing 3.1x\varnothing 12x1.8mm$ .
- 2 x Locking Element Tail.
- 6 x Metric Hex Nylon Nut M3.
- 2 x Double Side Tape (HA028).
- 2 x Socket Head Cap Screw M3x10mm.

**White Tail Boom  
[H0301-S]**



- 1 x White Tail Boom.
- 2 x Nylon Screw M8x14mm.
- 2 x Double Side Tape ( HA022).
- 2 x Washer  $\varnothing 3.1x\varnothing 12x1.8mm$ .
- 2 x Locking Element Tail.
- 6 x Metric Hex Nylon Nut M3.
- 2 x Double Side Tape (HA028).
- 2 x Socket Head Cap Screw M3x10mm.

**Yellow Canopy  
[H0302-S]**



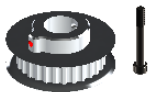
- 1 x Yellow Canopy.
- 2 x Canopy Groummet.
- 1 x Canopy Mouse.
- 1 x Edge Protection.

**White Canopy  
[H0303-S]**



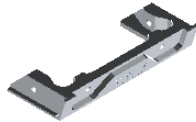
- 1 x Orange Canopy.
- 2 x Canopy Groummet.
- 1 x Canopy Mouse.
- 1 x Edge Protection.

**28T Front Tail Pulley  
[H0304-S]**



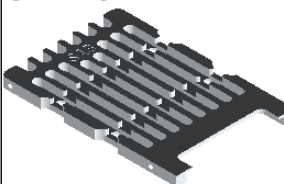
- 1 x Front Tail Pulley.
- 1 x Socket Head Cap Screws Shoudered M2.5x19mm.

**Landing Gear Mount Rear  
[H0306-S]**



- 1 x Landing Gear Mount Rear.

**Landing Gear Mount Front  
[H0307-S]**



- 1 x Landing Gear Mount Front.

**Carbon Servo Mount  
[H0308-S]**



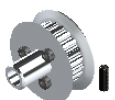
- 2 x Carbon Servo Mount.
- 6 x Socket Head Cap Screw M2.5x8mm.

**Carbon Part Electric Support  
[H0309-S]**



- 1 x BEC/RX Support.
- 1 x Sensor Support.

**22T Tail Pulley  
[H0310-S]**



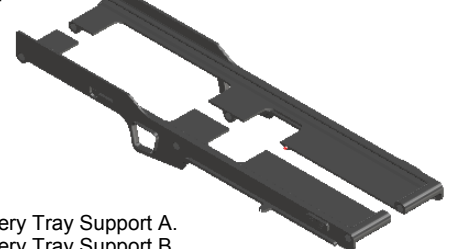
- 1 x Front Tail Pulley.
- 1 x Set Screws M3x8mm.

**Battery Tray  
[H0311-S]**



- 2 x Battery Tray.
- 2 x Strap 20x440mm.
- 1 x Strap 25x540mm.

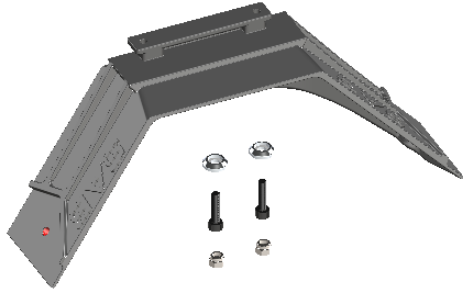
**Battery Tray Support  
[H0312-S]**



- 1 x Battery Tray Support A.
- 1 x Battery Tray Support B.

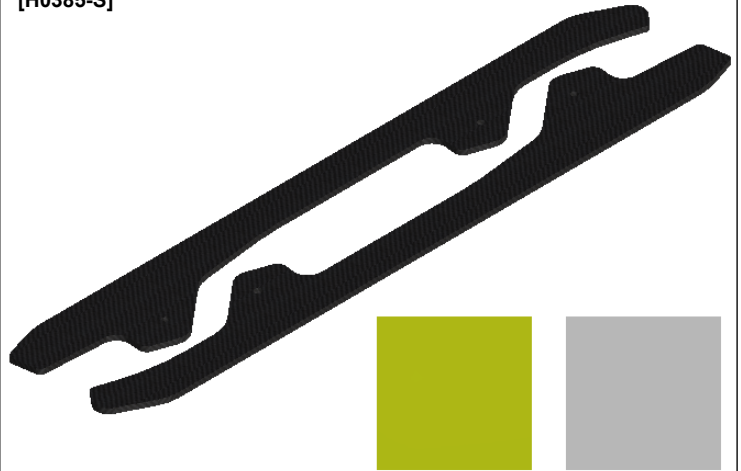


**Plastic Landing Gear Support  
[H0350-S]**



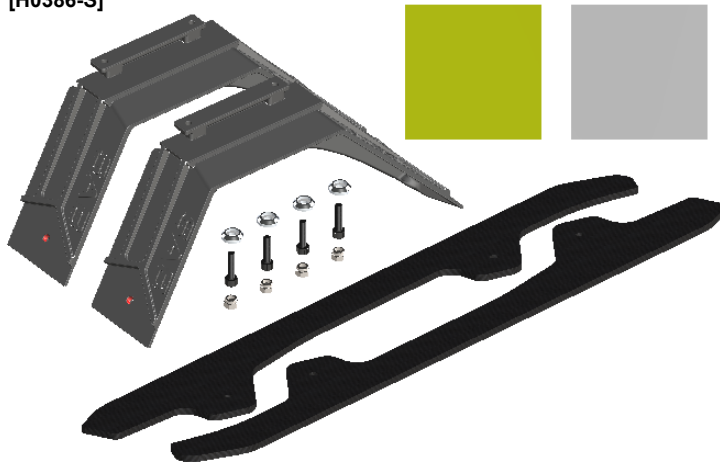
- 1 x Plastic Landing Gear Support.
- 2 x Socket Head Cap Screws M2.5x8mm.
- 2 x Finishing Washer M2.5.
- 2 x Metrix Hex Nylon Nut M2.5.

**CF Landing Gear  
[H0385-S]**



- 2 x Carbon Fiber Landing Gear.
- 1 x Sticker Yellow.
- 1 x Sticker White.

**Kit Landing Gear 500-570  
[H0386-S]**



- 2 x Plastic Landing Gear Support.
- 2 x Carbon Fiber Landing Gear.
- 4 x Socket Head Cap Screws M2.5x8mm.
- 4 x Metrix Hex Nylon Nut M2.5.
- 1 x Sticker Yellow.
- 1 x Sticker White.
- 4 x Finishing Washer M2.5.

**Servo Block  
[H0392-S]**



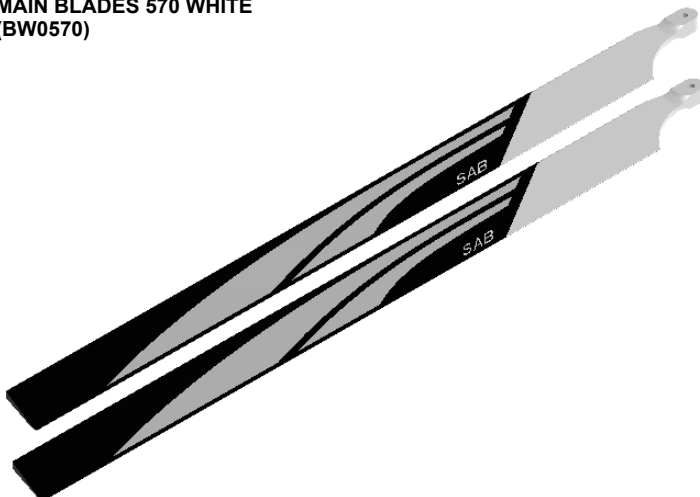
- 8 x Servo Block.
- 8 x Servo Spacer.
- 8 x Socket Head Cap Screws M2.5x10.

**Carbon Road Support  
[H0394-S]**



- 1 x Carbon Road Support A.
- 1 x Carbon Road Support B.
- 1 x Socket Head Cap Screws M2.5x12mm.

**MAIN BLADES 570 WHITE  
(BW0570)**



- 2 x Main Blades 570 White.
























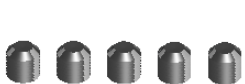

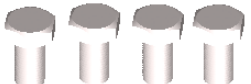

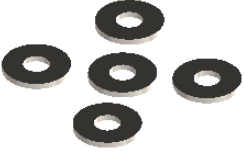






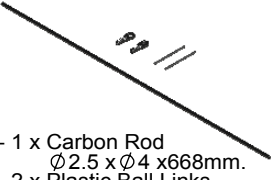
**TAIL BLADES 95 WHITE  
(BW5095)**



- 2 x Tail Blades 95 White.



**SAB HELI DIVISION**




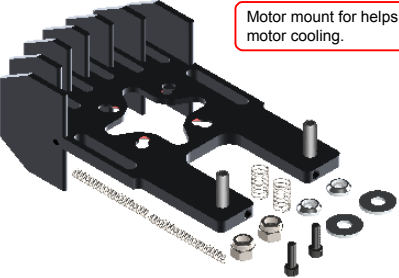
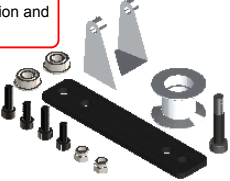
<p><b>[HC002-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2x5mm.</p>	<p><b>[HC004-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2x6mm.</p>	<p><b>[HC005-S]</b></p>  <p>- 5 x Button Head Cap Screws M2x5mm.</p>	<p><b>[HC008-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2x8mm.</p>	<p><b>[HC014-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2x12mm.</p>
<p><b>[HC018-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2.5x6mm.</p>	<p><b>[HC020-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2.5x8mm.</p>	<p><b>[HC022-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2.5x10mm.</p>	<p><b>[HC026-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2.5x12mm.</p>	<p><b>[HC028-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2.5x15mm.</p>
<p><b>[HC032-S]</b></p>  <p>- 5 x Socket Head Cap Screws M2.5x18mm.</p>	<p><b>[HC033-S]</b></p>  <p>- 4 x Socket Head Cap Shoulder M2.5x19mm. - 4 x Metric Hex Nylon Nut M2.5.</p>	<p><b>[HC044-S]</b></p>  <p>- 5 x Socket Head Cap Screws M3x6mm.</p>	<p><b>[HC056-S]</b></p>  <p>- 5 x Socket Head Cap Screws M3x10mm.</p>	<p><b>[HC074-S]</b></p>  <p>- 2 x Socket Head Cap Shoulders M3x16mm. - 2 x Metric Hex Nylon Nuts M3H4.</p>
<p><b>[HC082-S]</b></p>  <p>- 5 x Socket Head Cap Shouldereds M3x20mm.</p>	<p><b>[HC083-S]</b></p>  <p>- 5 x Socket Head Cap Shouldereds M3x22mm.</p>	<p><b>[HC111-S]</b></p>  <p>- 5 x Socket Head Cap Shouldereds M4x24mm.</p>	<p><b>[HC122-S]</b></p>  <p>- 5 x Button Head Cap Screws M6x10mm.</p>	<p><b>[HC128-S]</b></p>  <p>- 5 x Flat Head Cap Screws M2.5x5mm.</p>
<p><b>[HC132-S]</b></p>  <p>- 5 x Flat Head Cap Screws M3x5mm.</p>	<p><b>[HC146-S]</b></p>  <p>- 5 x Set Screws M2.5x15mm.</p>	<p><b>[HC148-S]</b></p>  <p>- 5 x Set Screws M3x8mm.</p>	<p><b>[HC152-S]</b></p>  <p>- 5 x Set Screws 4x4mm.</p>	<p><b>[HC154-S]</b></p>  <p>- 5 x Set Screws 4x15mm.</p>
<p><b>[HC164-S]</b></p>  <p>- 4 x Vite Nylon Esa Caps M8x14mm.</p>	<p><b>[HC172-S]</b></p>  <p>- 10 x Washers Ø2.5xØ4x0.3mm.</p>	<p><b>[HC184-S]</b></p>  <p>- 5 x Washers Ø4.3xØ11x1mm.</p>	<p><b>[HC193-S]</b></p>  <p>- 10 x Washers Ø6.1xØ12x1mm.</p>	<p><b>[HC200-S]</b></p>  <p>- 10 x Metric Hex Nylon Nuts M2.5H3.5.</p>
<p><b>[HC206-S]</b></p>  <p>- 10 x Metric Hex Nylon Nuts M3H4.</p>	<p><b>[HC212-S]</b></p>  <p>- 10 x Metric Hex Nylon Nuts M4 H5.</p>	<p><b>[HC228-S]</b></p>  <p>- 4 x Shim Washers Ø8xØ14x0.2mm.</p>	<p><b>[HC234-S]</b></p>  <p>- 5 x Shims Washer Ø10xØ16x0,1mm.</p>	<p><b>[HC240-S]</b></p>  <p>- 1 x Carbon Rod Ø2.5 x Ø4 x668mm. - 2 x Plastic Ball Links. - 2 x Threaded Rods M2.5x40mm.</p>



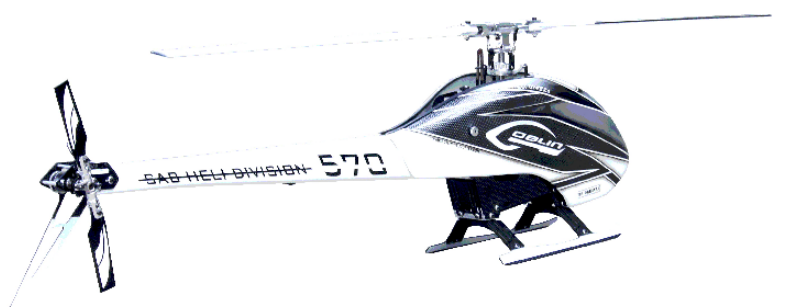
**SAB HELI DIVISION**

<p><b>[HC316-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Springs de 3 / df 0.53 / LL35.</li> <li>- 2 x Springs de 5 / df 0.3 / LL6.</li> </ul>	<p><b>[HC330-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Damper Orings HC330.</li> <li>- 2 x Damper Orings HC334.</li> </ul>	<p><b>[HC346-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Motor Belt 240-3GT-09.</li> </ul>	<p><b>[HC349-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Tail Belt 1692-HTD-6mm.</li> </ul>	<p><b>[HC351-S]</b></p>  <ul style="list-style-type: none"> <li>- 5 x Flat Head Cap Screws M4x6mm.</li> </ul>	<p><b>[HC400-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Flanged Bearings <math>\phi 2.5x \phi 6x2.5mm</math>.</li> </ul>
<p><b>[HC403-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Bearings <math>\phi 4x \phi 9x2.5mm</math>.</li> </ul>	<p><b>[HC412-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Flanged Bearings <math>\phi 5x \phi 13x4mm</math>.</li> </ul>	<p><b>[HC416-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Flanged Bearings <math>\phi 7x \phi 11x2.5mm</math>.</li> </ul>	<p><b>[HC417-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Bearings <math>\phi 8x \phi 14x4mm</math>.</li> </ul>	<p><b>[HC419-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Bearings <math>\phi 8x \phi 16x5mm</math>.</li> </ul>	<p><b>[HC420-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Bearings <math>\phi 10x \phi 15x4mm</math>.</li> </ul>
<p><b>[HC422-S]</b></p>  <ul style="list-style-type: none"> <li>- 4 x Bearings <math>\phi 10x \phi 19x5mm</math>.</li> </ul>	<p><b>[HC430-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Bearings Rads <math>\phi 30x \phi 37x4mm</math>.</li> </ul>	<p><b>[HC434-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Thrust Bearings <math>\phi 4x \phi 9x4mm</math>.</li> </ul>	<p><b>[HC437-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Thrust Bearings <math>\phi 8x \phi 14x4mm</math>.</li> </ul>	<p><b>[HC442-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x One Way Bearing <math>\phi 10x \phi 14x12mm</math>.</li> </ul>	<p><b>[HA001-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Foam Blade Holder.</li> </ul>
<p><b>[HA006-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Canopy Mousse 80cm.</li> </ul>	<p><b>[HA016-S]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Plastic Wrench Nut M8 &amp; M6.</li> </ul>	<p><b>[HA023-S]</b></p>  <ul style="list-style-type: none"> <li>- 3 x Straps 20x440mm.</li> </ul>	<p><b>[HA027-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Strap 25x540mm.</li> </ul>	<p><b>[HA111-S]</b></p>  <ul style="list-style-type: none"> <li>- 5 x Canopy Grommets.</li> </ul>	<p><b>[HA112-S]</b></p>  <ul style="list-style-type: none"> <li>- 5 x Canopy Edge Protection 1000mm.</li> </ul>

**UPGRADES and ACCESSORIES**

<p><b>Tail Pulley 21T [H0305-S]</b></p> <p>You can use this tail pulley for improve the tail authority with low Headspeed (&lt; 2400 rpm).</p>  <ul style="list-style-type: none"> <li>- 1 x Tail Pulley.</li> <li>- 3 x Socket Head Cap Screws M2x12mm.</li> <li>- 1 x Set Screws M3x8mm.</li> </ul>	<p><b>Quick Release Canopy Mount [H0321-S]</b></p>  <ul style="list-style-type: none"> <li>- 2 x Quick Release Canopy .</li> <li>- 2 x Flat Head Cap Screws M3x8mm.</li> <li>- 2 x Canopy Grommet.</li> </ul>	<p><b>Aluminum Servo Support [H0397-S]</b></p> <p>Aluminum servos support for the best precision of cyclic pith control.</p>  <ul style="list-style-type: none"> <li>- 2 x Aluminum Servo Support.</li> <li>- 6 x Socket Head Cap Screws M2.5x8mm.</li> </ul>
<p><b>Motor Mount Cooling [H0398-S]</b></p>  <p>Motor mount for helps the motor cooling.</p> <ul style="list-style-type: none"> <li>- 1 x Motor Mount Cooling.</li> <li>- 2 x Spring de 5 / df 0.3 / LL6.</li> <li>- 2 x Spring de 3 / df 0.53 / LL35.</li> <li>- 2 x Washer <math>\phi 4.3x \phi 11x1mm</math>.</li> <li>- 2 x Metrix Hex Nylon Nut M4H5.</li> <li>- 2 x Socket Head Cap M2.5x8mm.</li> <li>- 2 x Finishing Washer M2.5mm.</li> <li>- 2 x Set Screw M4x15mm.</li> </ul>	<p><b>Belt Tensioner [H0399-S]</b></p> <p>The tail belt tensioner reduces the vibrations introduced by the tail belt. It allows a reduced belt tension and so a greater flowability.</p>  <ul style="list-style-type: none"> <li>- 1 x Belt Tensioner 01.</li> <li>- 1 x Belt Tensioner 02.</li> <li>- 1 x Belt Tensioner 03.</li> <li>- 2 x Flanged Bearing <math>\phi 3x \phi 7x3mm</math>.</li> <li>- 2 x Socket Head Cap Screws M2.5x8mm.</li> <li>- 2 x Metrix Hex Nylon Nut M2.5.</li> <li>- 2 x Socket Head Cap Screws M2.5x6mm.</li> <li>- 2 x Socket Head Cap Screws Shoudered M3x16mm.</li> </ul>	

<p><b>SAB HELI DIVISION New Black T-shirt [HM025-S-M-L-XL-XXL]</b></p>  <ul style="list-style-type: none"> <li>- SAB HELI DIVISION New Black T-shirt.</li> </ul>	<p><b>SAB HELI DIVISION Black Polo Shirt [HM027-S-M-L-XL-XXL]</b></p>  <ul style="list-style-type: none"> <li>- SAB HELI DIVISION Black Polo Shirt.</li> </ul>	<p><b>SAB HELI DIVISION Black Hoodies [HM029-S-M-L-XL-XXL]</b></p>  <ul style="list-style-type: none"> <li>- SAB HELI DIVISION Black Hoodies.</li> </ul>	<p><b>SAB HELI DIVISION Neck Strap [HM034]</b></p>  <ul style="list-style-type: none"> <li>- 1 x Neck Strap.</li> </ul>	<p><b>SAB HELI DIVISION Decal [HM035]</b></p>  <ul style="list-style-type: none"> <li>- 1 x SAB HELI DIVISION Decal ( set ).</li> </ul>	<p><b>SAB HELI DIVISION Keychain [HM037]</b></p>  <ul style="list-style-type: none"> <li>- 1 x SAB HELI DIVISION Keychain.</li> </ul>
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**SAB HELIDIVISION GOBLIN 570**

[WWW.GOBLIN-HELICOPTER.COM](http://WWW.GOBLIN-HELICOPTER.COM)

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