- Carefully check your model before each flight to ensure it is airworthy.
- Consider flying only in areas dedicated to the use of model helicopters.
- Check and inspect the flying area to ensure it is clear of people or obstacles.
- Rotor blades can rotate at very high speeds! Be aware of the danger they pose.
- Always keep the model at a safe distance from other pilots and spectators.
- Avoid maneuvers with trajectories towards a crowd.
- Always maintain a safe distance from the model.
SPECIFICATIONS

Main rotor diameter : 820mm.
Main blade length : 360mm.
Tail rotor diameter : 192mm.
Tail blade length : 70mm.
Main shaft diameter : 8mm.
Tail shaft diameter : 5mm.
Spindle diameter : 5mm.
Motor size: Maximum 41mm diameter, maximum height 41mm.
Battery compartment: 44x44x130mm.
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 for this model. Follow the order of assembly indicated. The instructions are divided into chapters, which are structured in a way that each step is based on the work done in 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:

- **Important**
- **Bag xx** Indicates that for this assembly phase you need materials that are in Bag xx.

- Use retaining compound (e.g., Loctite 648)
- Use retaining compound (e.g., Loctite 243)
- Use CA Glue
- Use Proper Lubricant
Inside the main box there are:

- **Box 1**: Canopy, Frames, Blade Holder, Landing Gear, Battery Support, Tail Fin Assembly.

- **Box 2**: Combo Components (Optional).

- **Box 3**: Boom, Carbon Rod, Blades + Tail Blades.

- **Box 4**: Mechanical parts, Bags.

**TOOLS, LUBRICANTS, ADHESIVES**

- Generic pliers.
- Hexagonal driver, size 1.5, 2, 2.5mm.
- 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).
- Grease (eg. Microlube GL261).
- Cyanoacrylate adhesive.

- Pitch Gauge (for set-up).
- Soldering equipment (for motor and ESC wiring).

**ADDITIONAL COMPONENTS REQUIRED**

- Electric Motor: 850 - 1000Kv:
  - Maximum diameter 41mm.
  - Maximum height 41mm.
  - Pinion shaft diameter 5 mm.

- Speed controller: minimum 60A, extreme 3D Flight 70-90A.

- Batteries: 6S-1800 mAh (1500 - 2600 mAh).
- 1 flybarless 3 axis control unit.
- Radio power system, if not integrated with the ESC.
- 3 micro cyclic servos.
- 1 mini (midi) tail rotor servo.
- 6 channel radio control system on 2.4 GHz.

(See configuration examples on page 14).

The assembly process is described in the following chapters. Each chapter provides you with the box and bag you will need for that chapter. The information is printed at the top of every page.
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. This is particularly important in the areas shown in red.
Note:
Use Loctite 243 to lock the bolts in the correct position.

SUGGESTION
If you have the tail servo, we suggest you install it at this time as it will be more convenient to do so before assembling the main frames. Please refer to page 13 now for more information.
Landing Gear Assembly

- Finishing Washer M2.5 (H0255-S)
- Alu Landing Gear Support (H0644-S)
- Socket Head Cap Screw M2.5x10mm (HC022-S)
- Plastic Landing Gear Support (H0556-S)
- Main Frame Assembly

Socket Head Cap Screw M2.5x10mm (HC022-S)

- Head Cap Screws Special M2.5x6mm (HC019-S)
- Carbon Fiber Landing Gear (H0645-S)

Note:
Use Loctite 243 to lock the bolts in the correct position.
Chapter 5, Transmission Assembly

Main Shaft Support Assembly

Main Shaft Support (H0522-S)
Bearing Ø8xØ16x5mm (HC419-S)  
Already Assembled

Main Shaft Assembly

Main Shaft Support Assembly

Main Shaft (H0507-S)

Main Plate (H0519-S)

Serial Number [Bag 19]

Main Shaft Support Assembly

Socket Head Cap Screw M2.5x8mm (HC020-S)

Main Shaft Assembly

Socket Head Cap Screw M2.5x8mm (HC020-S)

Socket Head Cap Screw M2.5x8mm (HC020-S)

Bearing Ø8xØ16x5mm (HC419-S)  
Already Assembled

Shims Ø8xØ12x0,1mm (HC462-S)

Tighten the three screw M2.5. After tightening, check the axial play of the main shaft. It is possible to reduce any axial play by adding shims.

IMPORTANT: Very carefully check to make sure you can turn the main shaft freely. If you feel too much friction, you have used too many shims, you can remove a shim until the shaft turns freely.

Note:

You must be put strong main gear (H0320-S) before you put 3 column on main structure

Note:

Tighten the three screw M2.5. After tightening, check the axial play of the main shaft. It is possible to reduce any axial play by adding shims.

IMPORTANT: Very carefully check to make sure you can turn the main shaft freely. If you feel too much friction, you have used too many shims, you can remove a shim until the shaft turns freely.
Chapter 5, Transmission Assembly

Bag 3

120T Pulley Assembly (H0502-S)
- 120T Pulley (H0502-S)
- Flanged Bearing Ø8xØ12x3,5mm (HC418-S)
- Socket Head Cap Screw M2x5 (HC002-S)

Front Tail Pulley Assembly (H0503-S)
- Front Tail Pulley (H0503-S)
- Socket Head Cap Screw M2x8mm (HC008-S)

Note:
- Add or remove shims to get approximately 0.2-0.4mm play.

Main Plate Assembly
- Anti-Rotation (H0533-S)
- Plastic Servo Support (H0548-S)

120T Pulley Assembly
- One Way Bearing Ø8xØ12x12mm (HC440-S)

Bag 4

- Plastic Servo Support (H0548-S)
- Front Tail Pulley Assembly
- Shims Ø8xØ14x0,2mm (HC228-S)
- Socket Head Cap Shoulder M2.5x15mm (HC031-S)

Add or remove shims to get approximately 0.2-0.4mm play.

eg: Microlube GL261
Chapter 6, Main Rotor Assembly

Blade Grip Linkage Assembly

- Flanged Bearing ø2.5xø6x2.5 (HC400-S)
- Blade Grip Linkage (H0598-S)
- Linkage Rod (H0561-S)
- Bushing [H0599]
- Plastic Ball Link (H0403-S)
- Head Cap Screw M2.5x15mm (HC028-S)

Center Hub Assembly

- Center Hub (H0595-S)
- Spindle (H0596-S)
- Already Assembled

Blade Grip Assembly

- Head Cap Screw M2.5x8mm (HC020-S)
- Bearing ø5xø10x4mm (HC411-S)
- Main Blade Grip (H0513-S)
- Blade Grip Arm (H0597-S)
- Washer ø7.5xø7x0.2mm (HC449-S)
- C Washer ø5xø7x0.2mm (HC449-S)
- Washer ø7.5xø10x0.5 (H0349-S)
- Thrust Bearing ø5xø10x4mm (HC435-S)
- Note: Larger ID Inside
- Button Head Cap Screw M4x6mm (HC096-S)
- eg: Microlube GL261

Linkage Rod A Assembly . . . x3

- (Initial length for the rods from the swashplate to the Blade Grip.)
- Approx 45 mm

Note:

- We recommend assembling without shims for sport flying.
- However, for 3D flight or high RPM, the best setup is assembling with at least one shim between the damper and bearing.
- After approximately 20/30 flights, please manually check the head dampening, you can add one 0.1mm shim (HC450) if the dampening feels loose.

Bag 4
Chapter 7, Assembling The Modules

Bag 5

NOTE:
Keep the distance between the end of the canopy retainer H0542 and the frame at approximately 12mm.
INSTALLATION OF SWASHPLATE SERVOS

The linkage ball must be positioned approximately **13-15 mm** out on the servo arm (figure 1), it is recommended to use the SAB servo arm p/n [HA052]. Because of the 120° placement of the servos in the Goblin, the arms are difficult to access. For this reason it is advisable to ensure alignment of the servo arms (and sub trim) before installation of the servos in the model (figure 2). Proceed with installation following the instructions below. Figure 3 shows a completed installation.

The rods going from the servos to the swash plate must be as vertical as possible. (Red line in Figure 4)

Not all servos are equal, so for proper alignment you can choose to use the supplied spacer H0566 under the uniball H0538.

**Note:** Do not over tighten, be careful to not strip plastic.
Chapter 8, Installation Of Swashplate Servos

Tip on cable routing

You can use zip-ties to secure the 3 servo cables to the servo support.

HPS Head Preliminary Setup

**Linkage Rod A Assembly ... x2**
Approx 45mm

Linkage Rod M2x22mm (H0561-S)

Initial length for the rods from the swashplate to the blade grips.
The distance between the servo spline and the ball must be between 13-15 mm. You can use the SAB servo horn [HA053].

Uniball M2 5H6 Socket Head Cap M3x6mm (H0064-S) (HC044-S)

Socket Head Cap M2x8mm (HC008-S)
Some example configurations:

<table>
<thead>
<tr>
<th>MOTOR</th>
<th>ESC</th>
<th>MOTOR PULLEY</th>
<th>RPM MAX</th>
<th>PITCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantum 2820-880</td>
<td>CC Lite 75</td>
<td>22T</td>
<td>3000</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>HW 60 - Koby 70 - YGE 60</td>
<td>20T</td>
<td>3000</td>
<td></td>
</tr>
<tr>
<td>Scorpion HK 3014-900</td>
<td>CC Lite 75</td>
<td>22T</td>
<td>3100</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>HW 60 - Koby 70 - YGE 60</td>
<td>20T</td>
<td>3100</td>
<td></td>
</tr>
<tr>
<td>X-NOVA 2820-890</td>
<td>CC Lite 75</td>
<td>23T</td>
<td>3200</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>HW 60 - Koby 70 - YGE 60</td>
<td>21T</td>
<td>3200</td>
<td></td>
</tr>
<tr>
<td>Scorpion HK 3020-1000</td>
<td>CC Lite 75</td>
<td>21T-22T</td>
<td>3200-3350</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>HW 60 - Koby 70 - YGE 60</td>
<td>18T-19T</td>
<td>3200-3350</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CC Lite 100</td>
<td>21T-22T</td>
<td>3300-3450</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HW 100 - Koby 90 - YGE 90</td>
<td>19T-20T</td>
<td>3350-3500</td>
<td></td>
</tr>
<tr>
<td>KDE 500XF 925-G3</td>
<td>CC Lite 75</td>
<td>22T-23T</td>
<td>3200-3350</td>
<td>12.5</td>
</tr>
<tr>
<td>Kontronik Pyro 380-9</td>
<td>HW 60 - Koby 70 - YGE 60</td>
<td>20T-21T</td>
<td>3200-3350</td>
<td></td>
</tr>
<tr>
<td>X-NOVA 3215-930</td>
<td>CC Lite 100</td>
<td>23T-24T</td>
<td>3350-3500</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HW 100 - Koby 90 - YGE 90</td>
<td>21T-22T</td>
<td>3350-3500</td>
<td></td>
</tr>
</tbody>
</table>

Note: Although the Goblin can handle even higher RPMs, for safety reasons we suggest not to exceed 3400 RPM.
**NOTE:**

Correct position for the motor wires.

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 cutoff disc.

Additionally, ensure the motor shaft has an appropriate 'flat' for one of the set screws.
MOTOR BELT TENSION

* Assemble the motor and pulley to its mounting plate.
* Install the motor assembly in the helicopter.
* It is easy to install the belt with the motor assembly pushed back towards the helicopter as far as it can go. First put the belt on the motor pulley.
* Then put the belt around the big pulley.
* Rotate the motor several times by hand.
* Pull and hold the motor slightly.
* Tighten the M4 nut first (it is suggested to use tool nut driver).
* **The belt must be very tight.**
* Tighten the rest of the bolts.

Note:

Check for vertical alignment of the motor pulley. To do this, simply turn the motor several times by hand and check to see if the belt is aligned properly with the big pulley (one way bearing pulley).

If the belt is riding too high, simply loosen up the motor pulley and drop it just a little bit, if it is riding too low, loosen up the motor pulley and raise it a bit.
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 speed controller (ESC) is installed in the front of the helicopter. Figure 1 and Figure 2 show the mounting area.

Figure 4: Shows the suggested length of the battery wire. This length is also compatible with the quick battery connector upgrade.

Figure 5: Shows the wire that connects the ESC to the receiver or flybarless control system.
Chapter 12, Installation Of Flybarless Unit and RX

FLYBARLESS CONTROL UNIT AND RX INSTALLATION

We suggest the use of a “single unit” FBL system (all in one type unit). This allows for easier wire routing considering the small size of this helicopter.

Position 1 can be used to install the FBL unit. Position 2 and 3 can be used to install a small RX unit, like a Spektrum satellite. Position 4 and 5 can be used to install RX unit.

Use your judgment to decide whether you need to install your FBL unit as shown in Fig 2 or Fig 3. This will depend on the size of the FBL unit itself and the arrangement of the wires.

With larger units, the nylon nut can make it difficult to connect the wires to the unit, in this case it is recommended to use the aluminum support H0564.

With smaller units, the unit can be installed directly onto the main plate. This facilitates boom removal in the future if necessary.

We recommend using some type of adhesive to prevent the servo wires and connections from coming unplugged from the receiver or FBL unit. You can use hot glue for this purpose.
The area between the boom and the frame can be used to route the wire(s) (Fig 4 and 5).

You can secure the wire(s) to the frame with zip-ties (Fig 6).
Chapter 13, Tail Assembly

Bag 10

Tail Pitch Slider Assembly

Tail Pitch Slider 01 [H0231]
Flanged Bearing \( 7 \times 11 \times 3 \text{mm} \) (HC416-S)
Tail Pitch Slider 02 [H0232]
Flanged Bearing \( 7 \times 11 \times 3 \text{mm} \) (HC416-S)
Tail Pitch Slider 03 (H0512-S)
Tail Blade Grip (H0511-S)
Uniball M3 (H0065-S)
Washer \( 3 \times 4.75 \times 0.5 \) (H0540-S)
Bearing \( 3 \times 7 \times 3 \) (HC458-S)
Washer \( 4.5 \times 5.9 \times 0.5 \) (H0541-S)
Note: Larger ID inside

Tail Rotor Hub Assembly

Tail Spindle (H0510-S)
Tail Damper (H0567-S)
Tail Shaft (H0509-S)
Grease
eg: Microlube GL261
Tail Blade Grip (H0511-S)
Bearing \( 3 \times 6 \times 2.5 \) (HC457-S)
Thrust Bearing \( 3 \times 6 \times 2.5 \) (HC448-S)
Spacer \( 2 \times 4.5 \times 0.5 \) (H0566-S)
Socket Head Cap Screw M2x6mm (HC004-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

Tail Pitch Slider Assembly
Tail Pitch Slider Link Assembly
Socket Head Cap Screw M2x6mm (HC004-S)
Tail Pitch Slider Link (H0261-S)
Spacer \( 2 \times 3 \times 3 \text{mm} \) (H0076-S)
Note: S >> Right Side
Spacer \( 2 \times 3 \times 3 \text{mm} \) (H0076-S)
Note: S >> Left Side

Page 20
Tail Side Plate Assembly

- Tail Side Alluminum Case (H0523-S)
- Cross Tail Case (H0526-S)
- Flanged Bearing Ø5x Ø13x4mm (HC412-S)

Bell Crank Lever Assembly

- Flanged Bearing Ø2.5x Ø6x2.5mm (HC400-S)
- Spacer Arm Ø2.5x Ø4x6.3mm (H0253-S)
- Bell Crank Lever (H0234-S)
- Uniball M3xØ4 H3 (H0279-S)
- Flanged Bearing Ø2.5x Ø6x2.5mm (HC400-S)

Tail System Assembly

- Belt 1140-HTD-2 (HC455-S)
- 20T Tail Pulley (H0504-S)
- Set Screw M3x6mm (HC144-S)
- Vertical Fin (H0532-S)
- Tail Pin (H0264-S)
- Flanged Bearing 3x7x3mm (HC402-S)
- Washer 3x4x0.5mm (HC176-S)
- Bell Crank Base (H0058-S)
- Bell Crank Lever (H0406-S)
- Bell Crank Lever Assembly

Note: The set screw should align with the hole in the tail shaft.

SAB HELI DIVISION
Locking Element Tail Assembly .... x 2

Locking Element Tail (H0535-S)

Already Assembled

Metric Hex Nylon Nut M2.5 (HC200-S)

Tail Boom Assembly

Locking Element Tail Assembly (H0535-S)

Double Sided Tape (HA033-S)

Red Tail Boom (H0547-S)

Double Sided Tape (HA033-S)

Note: We suggest to clean the sticking surface with sand paper.

M8 Carbon Block Assembly

M8 Carbon Block (H0534-S)

Metrix Nylon Nut M8 (HC224-S)

M8 Carbon Block Assembly

Double Sided Tape (HA034-S)

Red Tail Boom (H0547-S)

Yellow Tail Boom (H0546-S)

Note: You can use Super Glue for block the nuts in correct position

Page 22
Note: Please allow plenty of time for the glue to cure before inserting plastic ball link onto the threaded rod.

Assemble H0040-S in the boom:
Before assembling the two parts in the boom we suggest tightening the M2.5 screws into the two plastic parts to pre-thread them. In this way when you will assemble the tail servo it will be easier to tighten the screws into the plastic parts. Check the tail servo can fit, if necessary carefully sand the hole.

Attaching H0082-S to the boom:
Pre-assemble the two boom spacers H0082-S with the M3x20 socket set screw. Insert into the boom tube completely done up. Center the holes, then unscrew until there is contact with the walls. Lock everything with the adhesive.
**BOOM ASSEMBLY**

* Insert the boom. This operation is easier fitting into the main frame at a slight angle [Fig.1]. To facilitate boom insertion, you can also unscrew the two bolts that hold the tail servo support tray.
* Tighten the M8 nut with HA016 special tool supplied.
* After installation, connect the tail push rod.
* To lock the nut and prevent it from coming loose, install:
  - H0287 (for FBL unit installed on the main plate) [Fig.2].
  - H0564 (for FBL unit installed on H0564) [Fig.3].

---

**NOTE:**

* Insert the boom. This operation is easier fitting into the main frame at a slight angle [Fig.1]. To facilitate boom insertion, you can also unscrew the two bolts that hold the tail servo support tray.
* Tighten the M8 nut with HA016 special tool supplied.
* After installation, connect the tail push rod.
* To lock the nut and prevent it from coming loose, install:
  - H0287 (for FBL unit installed on the main plate) [Fig.2].
  - H0564 (for FBL unit installed on H0564) [Fig.3].
**CANOPY**

Fit the canopy to the main frame until it stops. [Fig. 2]
Fit the canopy holes to the M4 set screws on the model.

Check alignment of the edge on the boom [Fig. 3]
If the alignment is correct, enlarge the 2 canopy holes with a reamer up to 10 mm in diameter.
If alignment is not OK, enlarge the 2 canopy holes in the appropriate direction up to 10 mm in diameter.

Install the canopy grommets. [Fig. 4]

The canopy can be locked using the knobs H0543. [Fig. 5]

**NOTE:** If you want to use the rubber edge protector, you must increase the size of the opening in the canopy that goes around the anti-rotation guide by approximately 2 mm per side.

**TAIL BELT TENSION**

*Check for the proper assembly of the tail boom.
*Loosen the tail case by loosening the 4 M2.5 screws.
*Install the belt onto the front pulley in the correct direction of rotation (figure 1).
*Rotate the tail drive several times by hand.
*Pull the tail case back to increase belt tension.
*Tighten the 4 M2.5 screws on the tail case.
*The belt must be very tight.
BATTERIES

The Goblin has a quick release battery tray system. The batteries must be installed onto the battery tray to take advantage of the quick release locking system. Install the battery to the battery tray using double sided tape and the long Velcro straps included (Fig 1 and Fig 2). Make sure to find the right position of the battery to optimize the center of gravity. The battery wires arranged as in Fig 2 are particularly effective. To insert the battery, simply align the battery tray in the slots at the front of the helicopter and slide all the way. The battery will lock in place. To remove the battery, simply lift up on the locking lever (Fig 5) and pull.

IMPORTANT:

⚠️ Make sure the battery is locked in place before flight; the battery tray must be inside the slots on both sides!
IN FLIGHT

3 blade rotor heads require a much lower cyclic gain on flybarless systems. We recommend that you set your gain at least 30% lower than the gain you normally use on your 2 blade rotor head helicopters. You can start increasing the gain after you complete your first flight. Running too high of a gain can induce a violent oscillation that can potentially cause damage to your helicopter in flight.

If the model is making strange noises, this can be usually attributed to incorrect belt tensions. Check the belts again and tighten if necessary.

It’s very important to check the model thoroughly after the first 2-3 flights. Check all bolts, screws, belts, ball links, etc.

SERIAL NUMBER

In Bag 19, you will find the serial number tag for your Helicopter. Apply the tag as shown. Please remember to register your product. (See page 1)

Always in Bag 19, you can find also the KSE plate.

OPERATIONS BEFORE FLIGHT

* Set up the transmitter and the flybarless system with utmost care.
* It is advisable to test the correct settings of the transmitter and flybarless system without main blades and tail blades fitted.
* Check that all wiring is isolated from the carbon/aluminum parts. It is good practice to protect them at the points 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 at higher RPM. Although the Goblin can fly at very high RPMs, for safety reasons we suggest to not exceed 3400 RPM.

* 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. Failure to tighten the blades properly can result in a boom strike during spool up. To fold the blades for storage, it is advisable to loosen them.
* Check the collective and cyclic pitch. For 3D flight, set about +/- 12.5°.
* It is important to check the correct tracking of the main blades. (Fig. 3).

* Perform the first flight at a low head speed, 2400/2500 RPM. After this first flight, do a general check of the helicopter. Verify that all screws and bolts are correctly tightened.

In Bag 19, you will find the serial number tag for your Helicopter. Apply the tag as shown. Please remember to register your product. (See page 1)
MAINTENANCE

*On the Goblin 380, some areas to look for wear include:

- Motor belt
- Tail belt
- Dampers

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

*The lifespan of these components varies according to the type of flying. On average it is recommended to check these parts every 20 flights. In some instances, based on wear, these parts should be replaced every 100 flights.

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

*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 and bolts remain tight.
### Main Frame

<table>
<thead>
<tr>
<th>POS</th>
<th>COD</th>
<th>Name</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H0255</td>
<td>Finishing Washers M2.5</td>
<td>Aluminum</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>H0529</td>
<td>Plastic Battery Support</td>
<td>Plastic</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>H0530</td>
<td>Tail Servo Support</td>
<td>Plastic</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>H0531</td>
<td>Main Frame</td>
<td>Carbon Fiber</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>H0536</td>
<td>Battery Tray Support</td>
<td>Carbon Fiber</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>H0539</td>
<td>Battery Aluminum Block</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>H0556</td>
<td>Landing Gear Support</td>
<td>Plastic</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>H0644</td>
<td>Landing Gear Support</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>H0645</td>
<td>CF Landing Gear</td>
<td>Carbon Fiber</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>HC005</td>
<td>Button Head Cap Screws</td>
<td>M2x5mm</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>HC019</td>
<td>Button Head Cap Screws</td>
<td>M2.5x6mm</td>
<td>14</td>
</tr>
<tr>
<td>12</td>
<td>HC022</td>
<td>Socket Head Cap Screws</td>
<td>M2.5x10mm</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>HA035</td>
<td>Double Sided Tape</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>HA036</td>
<td>Battery Strap</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
Chapter 18, Exploded view, Transmission Assembly

### TRANSMISSION ASSEMBLY

<table>
<thead>
<tr>
<th>POS</th>
<th>COD</th>
<th>Name</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H0255</td>
<td>Finishing Washer M2.5</td>
<td>Aluminum</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>H0501</td>
<td>21T Motor Pulley ASM</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>H0502</td>
<td>120T Main Pulley</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>H0503</td>
<td>Front Tail Pulley ASM</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>H0507</td>
<td>Main Shaft</td>
<td>Steel</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>H0519</td>
<td>Main Plate</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>H0520</td>
<td>Motor Support</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>H0522</td>
<td>Main Shaft Support</td>
<td>Steel</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>H0533</td>
<td>CF Anti-Rotation Guide</td>
<td>Carbon Fiber</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>H0548</td>
<td>Plastic Servo Support</td>
<td>Plastic</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>H0564</td>
<td>Flybarless Support</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>HC008</td>
<td>Socket Head Cap Screws</td>
<td>M2x8mm</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>HC018</td>
<td>Socket Head Cap Screws</td>
<td>M2.5x6mm</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>HC020</td>
<td>Socket Head Cap Screws</td>
<td>M2.5x8mm</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>HC031</td>
<td>Head Cap Screws Shouldered</td>
<td>M2.5x15mm</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>HC032</td>
<td>Socket Head Cap Screws</td>
<td>M2.5x18mm</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>HC132</td>
<td>Flat Head Cap Screws</td>
<td>M3x5mm</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>HC144</td>
<td>Cone Point Set Screws</td>
<td>M3x6mm</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>HC153</td>
<td>Cone Point Set Screws</td>
<td>M4x12mm</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>HC184</td>
<td>Washers</td>
<td>Ø 4.3x Ø 11x1mm</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>HC212</td>
<td>Metrix Nylon Nut</td>
<td>M4</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>HC418</td>
<td>Flanged Bearing</td>
<td>Ø 8x Ø 12x3.5mm</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>HC419</td>
<td>Bearing</td>
<td>Ø 8x Ø 16x5mm</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>HC440</td>
<td>One Way Bearing</td>
<td>Ø 8x Ø 12x12mm</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>HC454</td>
<td>Motor Belt</td>
<td>304-2GT-09</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>HC462</td>
<td>Shim Washers</td>
<td>Ø 8x Ø 12x0.2mm</td>
<td>2</td>
</tr>
</tbody>
</table>
### HEAD SYSTEM

<table>
<thead>
<tr>
<th>POS</th>
<th>COD</th>
<th>Name</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H0349</td>
<td>Washer</td>
<td>ø 7.5x Ø 10x0.5</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>H0403</td>
<td>Plastic Linkage Ball</td>
<td>M2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>H0513</td>
<td>Main Blade Grip</td>
<td>Aluminum</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>H0524</td>
<td>Linkage Servos</td>
<td>Plastic</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>H0537</td>
<td>Uniball M2 Female</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>H0538</td>
<td>Uniball M2 Male</td>
<td>Steel</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>H0561</td>
<td>Linkage</td>
<td>M2x22mm</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>H0595</td>
<td>Main HUB</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>H0596</td>
<td>Main Spindle</td>
<td>Steel</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>H0597</td>
<td>Main Blade Grip Arm</td>
<td>Aluminum</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>H0598</td>
<td>Blade Grip Linkage</td>
<td>Aluminum</td>
<td>3</td>
</tr>
<tr>
<td>12</td>
<td>H0599</td>
<td>Bushing</td>
<td>Brass</td>
<td>3</td>
</tr>
</tbody>
</table>

### HEAD SYSTEM

<table>
<thead>
<tr>
<th>POS</th>
<th>COD</th>
<th>Name</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>H0600</td>
<td>Swashplate 01</td>
<td>Aluminum</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>HC020</td>
<td>Head Cap Screws</td>
<td>M2.5 x 8mm</td>
<td>2</td>
</tr>
<tr>
<td>15</td>
<td>HC028</td>
<td>Head Cap Screws</td>
<td>M2.5 x 15mm</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>HC074</td>
<td>Head Cap Shoulder</td>
<td>M3 x 16mm</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>HC079</td>
<td>Head Cap Shoulder</td>
<td>M3 x 18mm</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>HC096</td>
<td>Button Cap Screws</td>
<td>M4 x 6mm</td>
<td>3</td>
</tr>
<tr>
<td>19</td>
<td>HC206</td>
<td>Metric Hex Nylon Nuts</td>
<td>M3</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>HC400</td>
<td>Flanged Bearing</td>
<td>ø 2x ø 6x2.5</td>
<td>6</td>
</tr>
<tr>
<td>21</td>
<td>HC411</td>
<td>Bearing</td>
<td>ø 5x ø 10x4</td>
<td>6</td>
</tr>
<tr>
<td>22</td>
<td>HC435</td>
<td>Thrust Bearing</td>
<td>ø 5x ø 10x4</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>HC449</td>
<td>C Washer</td>
<td>DS-3001HV</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BK Servo</td>
<td>3</td>
</tr>
</tbody>
</table>
## TAIL SYSTEM

### POS | COD | Name | Specification | Quantity
---|---|---|---|---
1 | H0065 | Uniball | M3 Ø5 H6 | 2
2 | H0066 | Plastic Ball Link | M2.5 | 2
3 | H0076 | Grip Link Bushing | Brass | 2
4 | H0231 | Tail Pitch Slider 01 | Aluminum | 1
5 | H0232 | Tail Pitch Slider 02 | Aluminum | 1
6 | H0234 | Bell Crank Lever | Plastic | 1
7 | H0253 | Spacer Arm | Ø2.5x4x6.3 | 1
8 | H0261 | Tail Pitch Slider Link | Plastic | 2
9 | H0264 | Tail Pin | Steel | 2
10 | H0279 | Uniball | M3 Ø5 H11.5 | 1
11 | H0504 | 20T Tail Pulley | Aluminum | 1
12 | H0509 | Tail Shaft | Steel | 1
13 | H0510 | Tail Spindle | Steel | 1
14 | H0511 | Tail Blade Grip | Aluminum | 2
15 | H0512 | Tail Slider | Aluminum | 1
16 | H0515 | Tail Hub | Steel | 1
17 | H0523 | Tail Side Plate | Aluminum | 1
18 | H0526 | Cros Tail Case | Aluminum | 1
19 | H0532 | Vertical Fin | Carbon Fiber | 1
20 | H0534 | CF Nut M8 Block | Carbon Fiber | 1
21 | H0535 | Locking Element Tail | Carbon Fiber | 2
22 | H0540 | Washer | Ø3x4.75x0.5 | 2
23 | H0541 | Washer | Ø4.5x5.9x0.5 | 2
24 | H0546 | Red Tail Boom | Carbon Fiber | 1

### TAIL SYSTEM

### POS | COD | Name | Specification | Quantity
---|---|---|---|---
25 | H0566 | Washer | Ø2Ø4.5x0.5 | 2
26 | H0567 | Tail Damper | Derlin | 2
27 | HC004 | Socket Head Cap Screws | M2 x 6mm | 4
28 | HC018 | Socket Head Cap Screws | M2.5 x 6mm | 4
29 | HC026 | Socket Head Cap Screws | M2.5 x 12mm | 2
30 | HC032 | Socket Head Cap Screws | M2.5 x 18mm | 1
31 | HC144 | Cone Point Set Screws | M3 x 6mm | 1
32 | HC164 | Nylon Screws | M8 x 14mm | 1
33 | HC200 | Nylon Nut | M2.5 | 6
34 | HC224 | Nylon Nut | M8 | 1
35 | HC242 | Threaded Rod | M2.5x40mm | 2
36 | HC400 | Bearing | Ø2.5x6x2.5 | 2
37 | HC412 | Flanged Bearing | Ø5x13x4 | 2
38 | HC416 | Flanged Bearing | Ø7x11x2.5 | 2
39 | HC448 | Thrust Bearing | Ø3x6x2.5 | 2
40 | HC457 | Bearing | Ø3x6x2.5 | 2
41 | HC458 | Bearing | Ø3x7x3 | 2
42 | HC461 | Carbon Rod | 1
43 | HA033 | Double Sided Tape | 2
44 | HA034 | Double Sided Tape | 1

---

Chapter 18, Exploded view, Tail System
### Chapter 19, Spare Parts

**Uniball M2 5H6 [H0064-S]**
- 5 x Uniballs M2 5H6.
- 5 x Uniball Spacers.
- 5 x Socket Head Cap Screws M2x8mm.
- 5 x Socket Head Cap Screws M2x6mm.

**Uniball M3x4 5H3 [H0065-S]**
- 5 x Uniballs M3x4 5H3.5.

**Plastic Ball Link [H0066-S]**
- 10 x Plastic Ball Link.

**Bell Crank Lever [H0234-S]**
- 1 x Bell Crank level.
- 2 x Tail Pin.
- 2 x Flanged Bearing 6x2.5mm.
- 1 x Spacer Arm 3x4 x 6.3.
- 1 x Head Cap Screws M2.5x18.
- 1 x Uniball M3x4 H5.

**Finishing Washer M2.5 [H0255-S]**
- 10 x Finishing Washer M2.5.

**Tail Pitch Slider Link [H0261-S]**
- 2 x Tail Pitch Slider Link.
- 2 x Spacer 3x3mm.
- 2 x Socket Head Cap M2x6mm.

**Plastic Ball Link M2 [H0403-S]**
- 5 x Plastic Ball Link M2.

**19T Motor Pulley [H0501-19-S]**
- 1 x 19T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.

**20T Motor Pulley [H0501-20-S]**
- 1 x 20T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.
- 3 x Head Cap Screws M2x8mm.

**21T Motor Pulley [H0501-21-S]**
- 1 x 21T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.

**22T Motor Pulley [H0501-22-S]**
- 1 x 22T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.

**23T Motor Pulley [H0501-23-S]**
- 1 x 23T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.

**24T Motor Pulley [H0501-24-S]**
- 1 x 24T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.

**25T Motor Pulley [H0501-25-S]**
- 1 x 25T Motor Pulley Assembly.
- 1 x Set Screws M3x6mm.

**120T Main Pulley [H0502-S]**
- 1 x 120T Main Pulley.
- 1 x Main Pulley Support.
- 2 x Shims Ø8xØ14x0.2mm.
- 5 x Head Cap Screws M2x5mm.
- 2 x Flanged Bearing Ø8xØ12x3.5mm.
- 1 x One Way Bearing Ø8xØ12x12mm.

**Front Tail Pulley [H0503-S]**
- 1 x Front Tail Pulley Assembly.
- 1 x Head Cap Screws Shoulder M2.5x15.
- 3 x Head Cap Screws M2x8mm.

**20T Tail Pulley [H0504-S]**
- 1 x 20T Tail Pulley Assembly.
- 1 x Set Screws M3x6mm.

**Main Shaft [H0507-S]**
- 1 x Main Shaft.
- 1 x Head Cap Screw M3x16mm.
- 1 x Metrix Nylon Nut M3.

**Tail Shaft [H0509-S]**
- 1 x Tail Shaft.
- 1 x Tail Hub.
- 1 x Set Screws M3x6mm.
- 2 x Tail Dampers.
**Tail Spindle [H0510-S]**
- 1 x Tail Spindle.
- 1 x Socket Cap Screw M2x6mm.
- 2 x Washer Ø 2x Ø 4.5x0.5mm.

**Tail Blade Grip [H0511-S]**
- 2 x Tail Blade Grip.
- 2 x Thrust Bearing Ø 3x Ø 6x2.5mm.
- 2 x Bearing Ø 3x Ø 7x3mm.
- 2 x Bearing Ø 3x Ø 6x2.5mm.
- 2 x Washer Ø 4.5x Ø 5.9x0.5mm.
- 2 x Washer Ø 2x Ø 4.5x0.5mm.
- 2 x Uniball M3.

**Tail Pitch Slider [H0512-S]**
- 1 x Tail Pitch Slider 01.
- 1 x Tail Pitch Slider 02.
- 1 x Tail Pitch Slider 03.
- 2 x Flanged Bearings Ø 8x Ø 12x3.5mm.

**Main Blade Grip [H0513-S]**
- 2 x Blade Grip.
- 2 x Thrust Bearing Ø 5x Ø 10x4.
- 4 x Bearing Ø 5x Ø 10x4.
- 2 x Washer Ø 7.5x Ø 10x0.5.
- 2 x Button Head Socket Cap M4x6.
- 2 x Washer Ø 5x Ø 7x0.1.

**Main Plate [H0519-S]**
- 1 x Main Plate.
- 1 x Bearing Ø 8x Ø 16x5.

**Motor Support [H0520-S]**
- 1 x Motor Support.
- 3 x Head Cap Screws M2.5x8.
- 1 x Set Screws M4x12.
- 1 x Metrix Hex Nylon Nut M4.
- 1 x Washer Ø 4x Ø 11x1mm.

**Main Shaft Support [H0522-S]**
- 1 x Main Shaft Support.
- 3 x Head Cap Screws M2.5x8.
- 1 x Bearing Ø 8x Ø 16x5.

**Aluminum Tail Plate [H0523-S]**
- 1 x Aluminum Tail Plate.
- 1 x Flanged Bearing Ø 5x Ø 13x4.
- 2 x Head Cap Screws M2.5x10.
- 2 x Finishing Washer M3.

**Linkage Servo [H0524-S]**
- 3 x Aluminum Tail Plate.

**Cros Tail Case [H0526-S]**
- 1 x Cros Tail Case.
- 2 x Head Cap Screw M2.5x6.

**Plastic Battery Support [H0529-S]**
- 1 x Plastic Battery Support.

**Tail Servo Support [H0530-S]**
- 1 x Tail Servo Support.
- 4 x Buttom Head Cap Special M2.5x6.

**Main Frame [H0531-S]**
- 1 x Main Frame.
- 2 x Finishing Washer M3.

**Vertical Fin [H0532-S]**
- 1 x Vertical Fin.
- 2 x Finishing Washer M3.
- 2 x Head Cap Screws M2.5x6.
- 2 x Head Cap Screws M2.5x10.

**Anti-Rotation Guide [H0533-S]**
- 1 x Anti-Rotation Guide.
- 2 x Head Cap Screws M2.5x6.

**Boom Accessories [H0535-S]**
- 1 x M8 Carbon Block.
- 2 x Locking Element Tail.
- 1 x Double Sided Tape [HA034].
- 1 x Double Sided Tape [HA033].
- 1 x Metrix Hex Nylon Nut M8.
- 1 x Metrix Hex Nylon Screw M8.
- 4 x Metrix Hex Nylon Nut M2.5.

**Battery Tray [H0536-S]**
- 1 x Battery Tray.
- 1 x Battery Straps.
- 1 x Double Sided Tape [HA036].

**Uniball M2 Female [H0537-S]**
- 2 x Uniball M2 Female.

---

Chapter 19, Spare Parts

Page 34
<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Code</th>
<th>Quantity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniball M2 Male</td>
<td>H0538-S</td>
<td>5 x</td>
<td></td>
</tr>
<tr>
<td>Battery Block</td>
<td>H0539-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Tail Spacer KIT</td>
<td>H0540-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Canopy Nut</td>
<td>H0542-S</td>
<td>2 x</td>
<td></td>
</tr>
<tr>
<td>Canopy Knob</td>
<td>H0543-S</td>
<td>2 x</td>
<td></td>
</tr>
<tr>
<td>Yellow/Blue Canopy</td>
<td>H0544-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Red/Black Canopy</td>
<td>H0545-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Yellow Boom</td>
<td>H0546-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Red Boom</td>
<td>H0547-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Plastic Servo Support</td>
<td>H0548-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Yellow/Black Canopy</td>
<td>H0549-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Main Linkage Rod</td>
<td>H0561-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>FBL Support</td>
<td>H0564-S</td>
<td>1 x</td>
<td></td>
</tr>
<tr>
<td>Tail Fin and Landing Gear Stickers</td>
<td>H0565-S</td>
<td>2 x</td>
<td></td>
</tr>
<tr>
<td>Tail Servo Spacer</td>
<td>H0572-S</td>
<td>4 x</td>
<td></td>
</tr>
<tr>
<td>Center Hub</td>
<td>H0595-S</td>
<td>1 x</td>
<td></td>
</tr>
</tbody>
</table>

**Part Details:**
- **Uniball M2 Male (H0538-S)**: 5 x Uniball M2 Male.
- **Battery Block (H0539-S)**: 1 x Battery Block, 1 x Button Cap Screws M2x5.
- **Tail Spacer KIT (H0540-S)**: 2 x Washer Ø 3x Ø 4.75x0.5, 2 x Washer Ø 4.5x Ø 5.9x0.5, 2 x Washer Ø 2x Ø 4.5xØ 0.5, 2 x Oring ID=2.9, S=1.78, 2 x Head Cap Screw M2x6mm.
- **Canopy Nut (H0542-S)**: 2 x Canopy Nut, 2 x Set Screws M4x20mm.
- **Canopy Knob (H0543-S)**: 2 x Canopy Knob.
- **Yellow/Blue Canopy (H0544-S)**: 1 x Yellow/Blue Canopy, 1 x Canopy Edge Protection, 2 x Canopy Grommet.
- **Red/Black Canopy (H0545-S)**: 1 x Red/Black Canopy, 1 x Canopy Edge Protection, 2 x Canopy Grommet.
- **Yellow Boom (H0546-S)**: 1 x Yellow Tail Boom, 1 x M8 Carbon Block, 2 x Locking Element Tail, 1 x Double Sided Tape [HA034], 1 x Double Sided Tape [HA033], 1 x Metrix Hex Nylon Nut M8, 1 x Metrix Hex Nylon Screw M8, 4 x Metrix Hex Nylon Nut M2.5.
- **Red Boom (H0547-S)**: 1 x Red Tail Boom, 1 x M8 Carbon Block, 2 x Locking Element Tail, 1 x Double Sided Tape [HA034], 1 x Double Sided Tape [HA033], 1 x Metrix Hex Nylon Nut M8, 1 x Metrix Hex Nylon Screw M8, 4 x Metrix Hex Nylon Nut M2.5.
- **Plastic Servo Support (H0548-S)**: 1 x Plastic Servo Support, 1 x Head Cap M2.5x18mm.
- **Yellow/Black Canopy (H0549-S)**: 1 x Yellow/Black Canopy, 1 x Canopy Edge Protection, 2 x Canopy Grommet.
- **Main Linkage Rod (H0561-S)**: 2 x Steel Main Linkage Rod, 4 x Plastic Ball Link M2.
- **FBL Support (H0564-S)**: 1 x FBL Support, 2 x Head Cap M2.5x8mm.
- **Tail Fin and Landing Gear Stickers (H0565-S)**: 2 x Tail Fin Stickers, 2 x Landing Gear Stickers.
- **Tail Servo Spacer (H0572-S)**: 4 x Tail Servo Spacer.
- **Center Hub (H0595-S)**: 1 x Center Hub, 1 x Socket Head Cap Screw Shouldered M3x16mm, 1 x Metric Hex Nylon Nut M3.
Chapter 19, Spare Parts

**STANDARD SPARE PARTS**

- **[HC002-S]**
  - 5 x Socket Head Cap M2x5mm.
- **[HC004-S]**
  - 5 x Socket Head Cap M2x6mm.
- **[HC005-S]**
  - 5 x Button Head Cap Special M2.5x6mm.
- **[HC008-S]**
  - 5 x Socket Head Cap M2x8mm.
- **[HC010-S]**
  - 5 x Socket Head Cap M2x10mm.
- **[HC018-S]**
  - 5 x Socket Head Cap Shoulder M2.5x15mm.
- **[HC019-S]**
  - 5 x Socket Head Cap M2.5x18mm.
- **[HC020-S]**
  - 2 x Socket Head Cap Shoulder M3x16mm.
- **[HC022-S]**
  - 2 x Flanged Bearings Ø 2.5x Ø 6x2.5mm.
- **[HC026-S]**
  - 5 x Cone Point Set Screw M4x6mm.
- **[HC031-S]**
  - 5 x Cone Point Set Screw M4x20mm.
- **[HC032-S]**
  - 5 x Cone Point Set Screw M4x12mm.
- **[HC074-S]**
  - 4 x Nylon Hex Nut M8x14mm.
- **[HC096-S]**
  - 10 x Washer Ø 2.2x Ø 5x0.3mm.
- **[HC144-S]**
  - 5 x Washer Ø 4.3x Ø 11x1mm.
- **[HC155-S]**
  - 5 x C Washer Ø 5x Ø 5x0.2mm.
- **[HC156-S]**
  - 5 x Washer Ø 4x Ø 9x0.3mm.
- **[HC164-S]**
  - 3 x Washer Ø 3.5x Ø 6x0.3mm.
- **[HC170-S]**
  - 5 x Washer Ø 3.2x Ø 8x0.3mm.
- **[HC184-S]**
  - 5 x Washer Ø 3x Ø 11x0.5mm.
<table>
<thead>
<tr>
<th>Code</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[HC200-S]</td>
<td>10 x Metrix Nylon Nut M2.5</td>
</tr>
<tr>
<td>[HC206-S]</td>
<td>10 x Metrix Nylon Nut M3</td>
</tr>
<tr>
<td>[HC212-S]</td>
<td>10 x Metrix Nylon Nut M4</td>
</tr>
<tr>
<td>[HC224-S]</td>
<td>4 x Metrix Nylon Nut M8</td>
</tr>
<tr>
<td>[HC228-S]</td>
<td>4 x Shim Ø8x14x0.2mm</td>
</tr>
<tr>
<td>[HC242-S]</td>
<td>3 x Thread Rod M2.5x40mm</td>
</tr>
<tr>
<td>[HC400-S]</td>
<td>4 x Flanged Bearing Ø2.5xØ6x2.6mm</td>
</tr>
<tr>
<td>[HC411-S]</td>
<td>4 x Bearing Ø5xØ10x4mm</td>
</tr>
<tr>
<td>[HC412-S]</td>
<td>4 x Flanged Bearing Ø5xØ13x4mm</td>
</tr>
<tr>
<td>[HC416-S]</td>
<td>2 x Flanged Bearing Ø7xØ11x2.5mm</td>
</tr>
<tr>
<td>[HC418-S]</td>
<td>2 x Flanged Bearing Ø8xØ12x3.5mm</td>
</tr>
<tr>
<td>[HC419-S]</td>
<td>2 x Bearing Ø8xØ16x5mm</td>
</tr>
<tr>
<td>[HC435-S]</td>
<td>2 x Thrust Bearing Ø5xØ10x4mm</td>
</tr>
<tr>
<td>[HC440-S]</td>
<td>1 x One Way Bearing Ø8xØ12x12mm</td>
</tr>
<tr>
<td>[HC448-S]</td>
<td>2 x Thrust Bearing Ø8xØ6x2.5mm</td>
</tr>
<tr>
<td>[HC450-S]</td>
<td>5 x Washer Ø5xØ7x0.1mm</td>
</tr>
<tr>
<td>[HC451-S]</td>
<td>2 x Oring DI=6.75, S=1.78</td>
</tr>
<tr>
<td>[HC452-S]</td>
<td>2 x Oring DI=2.9, S=1.78</td>
</tr>
<tr>
<td>[HC453-S]</td>
<td>1 x Belt 304-2GT-09</td>
</tr>
<tr>
<td>[HC454-S]</td>
<td>1 x Belt 1140-HTD-2</td>
</tr>
<tr>
<td>[HC455-S]</td>
<td>4 x Flanged Bearing Ø2xØ5x2.5mm</td>
</tr>
<tr>
<td>[HC456-S]</td>
<td>4 x Flanged Bearing Ø3Ø6x2.5mm</td>
</tr>
<tr>
<td>[HC457-S]</td>
<td>4 x Bearing Ø3Ø7x3mm</td>
</tr>
<tr>
<td>[HC458-S]</td>
<td>1 x Rad Bearing Ø25Ø32x4mm</td>
</tr>
<tr>
<td>[HC459-S]</td>
<td>1 x Spherical Bearing Ø12Ø22x7mm</td>
</tr>
<tr>
<td>[HC460-S]</td>
<td>1 x Tail Push Rod Ø4xØ2,5x420mm</td>
</tr>
<tr>
<td>[HC461-S]</td>
<td>2 x Plastic Ball Link</td>
</tr>
<tr>
<td>[HC462-S]</td>
<td>2 x Thread Rod M2,5</td>
</tr>
<tr>
<td>[HA016-S]</td>
<td>2 x Wrench Tool M8,M6</td>
</tr>
<tr>
<td>[HA021-S]</td>
<td>4 x Canopy Grommet</td>
</tr>
<tr>
<td>[HA025-S]</td>
<td>4 x Shim Ø8xØ12x0.1mm</td>
</tr>
<tr>
<td>[HA035-S]</td>
<td>2 x Double-sided Tape 1 mm Battery</td>
</tr>
<tr>
<td>[HA036-S]</td>
<td>2 x Battery Straps</td>
</tr>
<tr>
<td>[HA039-S]</td>
<td>1 x Foam Blade Holder</td>
</tr>
<tr>
<td>[HA052-S]</td>
<td>1 x Tail Servo Horn</td>
</tr>
<tr>
<td>[HA112-S]</td>
<td>1 x Canopy Edge Protection (1m)</td>
</tr>
<tr>
<td>[BW0370-S]</td>
<td>2 x Tail Blade 70mm</td>
</tr>
<tr>
<td>[3BL360-3DW]</td>
<td>3 x Main Blade 360</td>
</tr>
</tbody>
</table>
“The Goblin 380 Kyle Stacy Edition is an evolution of the original Goblin 380. It includes a 3 bladed rotor head that is based off of a DFC design. A very simple and robust setup makes it a nearly maintenance free model. The rotor head offers many of the characteristics that come from the other Kyle Stacy Edition kits. Such as stability, agility and power, giving you incredible performance in such a small package. The yellow and black color scheme not only looks great, but is incredibly visible in all orientations in the sky. I hope you have as much fun with the Goblin 380 Kyle Stacy Edition as I do!”

KYLE STACY

WWW.GOBLIN-HELICOPTER.COM
WWW.SABITALY.IT
SAB HELI DIVISION