



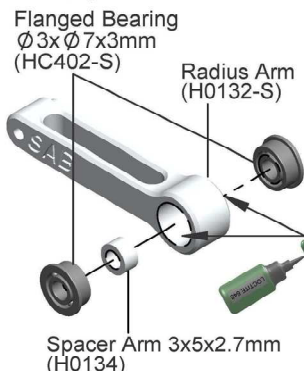
# Head HPS - Goblin630

## Foam, Bag1, Bag3, Bag4

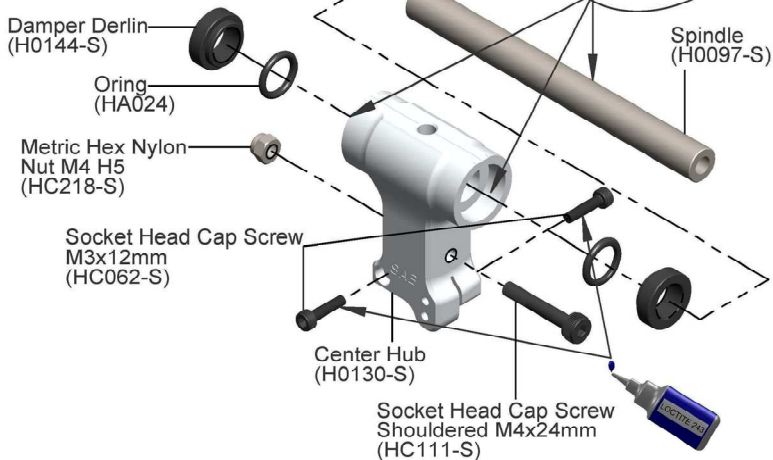
### Uniball Radius Arm x 2 Assembly



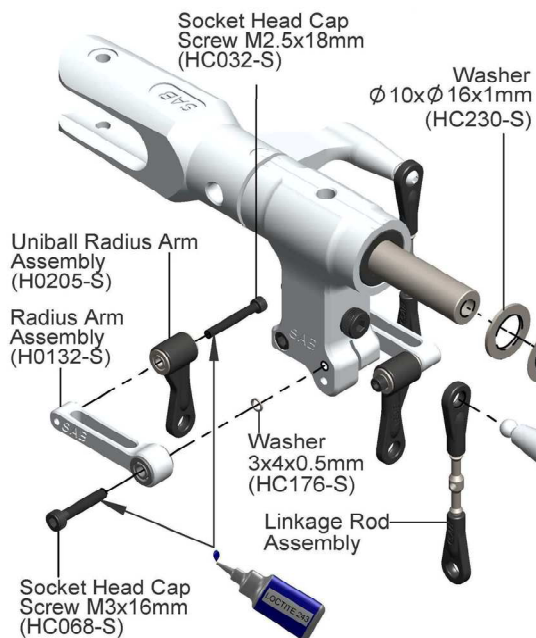
### Radius Arm x 2 Assembly



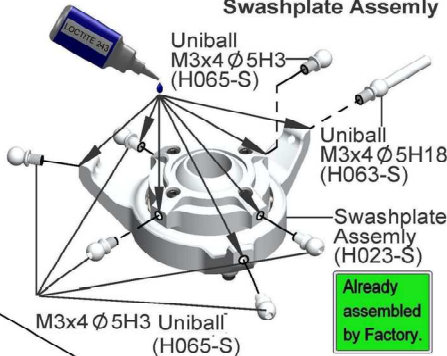
### Center Hub Assembly



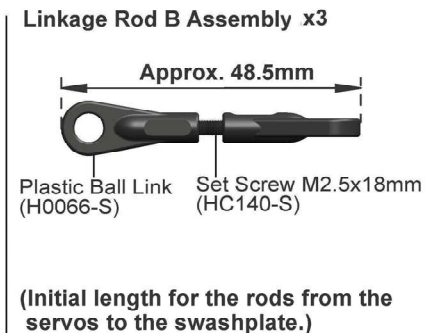
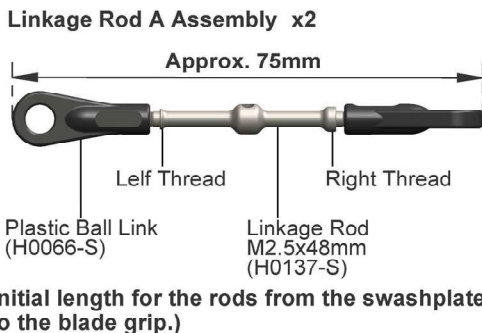
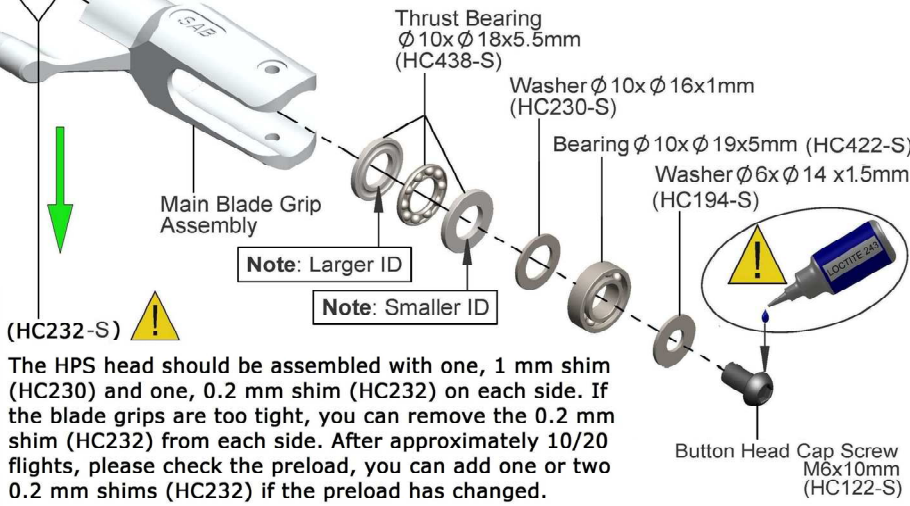
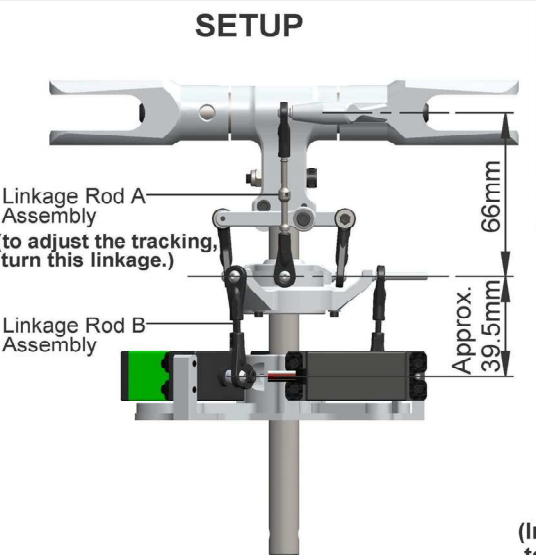
## Foam, Bag1, Bag2, Bag3, Bag4



### Swashplate Assembly



### Main Blade Grip Assembly x2



## Spare Parts

### Swashplate [H0023-S]



- 1 x Swashplate Assembly.
- 2 x Bearings 30x Ø37x4mm.
- 6 x Uniballs M3x4 Ø5 H3.
- 1 x Uniball M3x4 Ø5 H18.
- 3 x Socket Head Cap Screws M2x5mm.
- 4 x Socket Head Cap Screws M2x8mm.

### Blade Grip [H0086-S]



- 2 x Main Blade Grips.
- 2 x Thrust Bearings Ø10x Ø18x5.5mm.
- 4 x Bearing Ø10x Ø19x5mm.
- 2 x Socket Head Cap Screw Shouldered M5x30mm.
- 2 x Button Socket Head Cap Screw M5x30mm.
- 2 x Hex Metric Nylon Nut M5 H4.8.
- 2 x Washer Ø10x Ø16x1.

### Spindle [H0097-S]



- 1 x Spindle.
- 2 x Button Head Cap Screws M6x10mm.
- 2 x Washers Ø6x Ø14x1mm.

### Radius Arm [H0132-S]



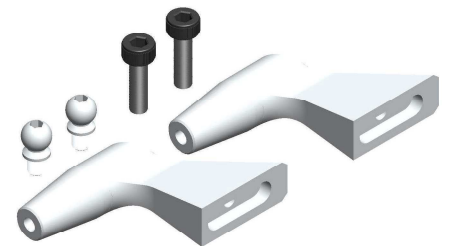
- 2 x Radius Arms.
- 2 x Spacer Arm Ø3x Ø5x2.7mm.
- 2 x Spacer Arm Ø2.5x Ø4x6.3mm.
- 2 x Uniball Radius Arms.
- 2 x Socket Head Cap Screws M3x16mm.
- 2 x Socket Head Cap Screws M2.5x18mm.
- 2 x Washers Ø3x Ø4x0.5mm.
- 4 x Flanged Bearings Ø2.5x Ø6x2.5mm.
- 4 x Flanged Bearings Ø3x Ø7x3mm.

### Center Hub [H0130-S]



- 1 x Center Hub.
- 2 x Socket Head Cap Screws M3x12mm.
- 1 x Socket Head Cap Screw Shouldered M4x24mm.
- 1 x Metric Hex Nylon Nut M4 H5.

### Blade Grip Arm [H0131-S]



- 2 x Blade Grip Arms.
- 2 x Uniballs M3x4 Ø5H3.
- 2 x Socket Head Cap Screws M3x10mm.

### Linkage [H0137-S]



- 2 x Linkages M2.5x48mm.
- 4 x Plastic Ball Links.

### Damper Derlin [H0144-S]



- 2 x Damper Derlin.
- 2 x Washers Ø10x Ø16x1mm.
- 4 x Washers Ø10x Ø16x0.2mm.
- 4 x Orings 3050.

## About HPS

HPS stands for "High Precision System". This head has been developed in order to increase the usable rotor RPM range without having to change the rigidity of the dampening system.

The new head is developed specially to limit the teetering effect of the spindle by means of dampening achieved by a special technopolymer material.

The maximum teetering amount can be adjusted based on the amount of play shown in figure "A" of the drawing. The O-ring is necessary to create a radial and axial preload. The preload can be kept relatively low, thanks to the mechanical locking properties of the technopolymer dampeners.

With this solution, finding the correct preload is less complex.

This solution is safer because there is a physical "stop" of the teetering effect with the technopolymer dampers, also with low axial preload.

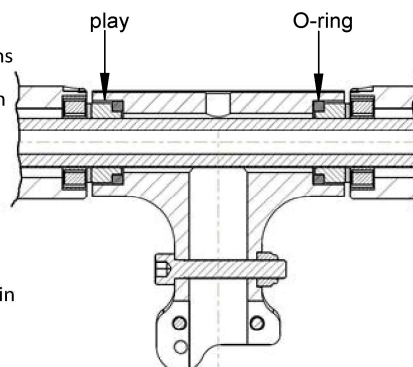
The change of preload will serve exclusively to customize the response of the model.

Furthermore, the spindle can only move vertically thanks to the elongated hole shown in section "B" of the drawing.

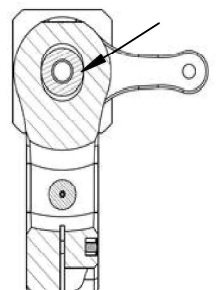
This solution allows an optimal control of the geometry even when large amounts of torque are introduced into the system.

The head is very accurate and reliable.

Figure A



Section B



## Recommendations

- These parts should be used only with models SAB Goblin
- Please follow all the instructions shown in the Goblin main manual. In this manual please read Chapter 2, Important notes
- Use Loctite on all threads.
- Put a small amount of grease inside the hub and the O-Ring.
- Check for axial play of the spindle at least after the first flights.
- Firmly tighten the blades before flight.