Head HPS - Goblin630 Center Hub Assembly NOISIVID LIGH BAS Foam, Bag1, Bag3, Bag4 Damper Derlin (H0144-S) Spindle (H0097-S) Uniball Radius Arm x 2 Radius Arm x 2 Assembly Assembly Oring— (HA024) Flanged Bearing Flanged Bearing Ø2.5x Ø6x2.5mm Ø3xØ7x3mm Metric Hex Nylon (HC400-S) (HC402-S) Radius Arm (H0132-S) Nut M4 H5 (HC218-S) Socket Head Cap Screw (HC062-S) Center Hub (H0130-S) Spacer Arm 2.5x4x6.3mm (H0253) Socket Head Cap Screw Shouldered M4x24mm Uniball Radius Arm Spacer Arm 3x5x2.7mm (H0205-S) (HC111-S) Swashplate Assemly Main Blade Grip Assembly x2 Foam, Bag1, Bag2, Bag3, Bag4 Uniball Main Blade Grip (H0086-S) M3x4 Ø 5H3 (H065-S) Socket Head Cap Screw M2.5x18mm (HC032-S) Jniball Washer Ø10xØ16x1mm M3x4Ø5H18 (HC230-S) (H063-S) Swashplate Assemly (H023-S) Blade Grip Arm (H0131-S) Already Uniball Uniball Radius Arm assembled M3x4 Ø 5H3 Uniball M3x4Ø5H3 Assembly (H0205-S) by Factory. (H065-S) (H0065-S) Socket Head Cap Radius Arm Bearing Ø 10x Ø 19x5mm Screw M3x10mm Assembly (H0132-S) (HC056-S) (HC422-S) Thrust Bearing Ø 10x Ø 18x5.5mm Washer (HC438-S) 3x4x0.5mm (HC176-S) Washer Ø 10x Ø 16x1mm (HC230-S) Linkage Rod Assembly Bearing ϕ 10x ϕ 19x5mm (HC422-S) Washer Ø 6x Ø 14 x 1.5 mm Socket Head Cap Screw M3x16mm (HC068-S) (HC194-S) Main Blade Grip Assembly Note: Larger ID Note: Smaller ID **SETUP** (HC232-S) The HPS head should be assembled with one, 1 mm shim (HC230) and one, 0.2 mm shim (HC232) on each side. If the blade grips are too tight, you can remove the 0.2 mm shim (HC232) from each side. After approximately 10/20 Button Head Cap Screw M6x10mm (HC122-S) 66mm flights, please check the preload, you can add one or two Linkage Rod A-Assembly 0.2 mm shims (HC232) if the preload has changed. (to adjust the tracking turn this linkage.) Linkage Rod B Assembly x3 Linkage Rod A Assembly x2 5mm Approx. 75mm Approx. 48.5mm Linkage Rod B Assembly Right Thread Lelf Thread Set Screw M2.5x18mm Plastic Ball Link

Plastic Ball Link

to the blade grip.)

(H0066-S)

Linkage Rod M2.5x48mm (H0137-S)

(Initial length for the rods from the swashplate

(HC140-S)

(Initial length for the rods from the

servos to the swashplate.)

(H0066-S)

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Spare Parts



- 1 x Swashplate Assembly

- 1 x Swasnplate Assembly.
 2 x Bearings 30x Ø 37x4mm.
 6 x Uniballs M3x4 Ø 5 H3.
 1 x Uniball M3x4 Ø 5 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
 Ø 10x Ø 18x5.5mm
- 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 Ø10xØ16x1.





- 1 x Spindle.2 x Button Head Cap Screws
- M6x10mm. 2 x Washers Ø6xØ14x1mm.



- -2 x Radius Arms.
- -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.
- Ø3x Ø4x0.5mm.
- Flanged Bearings ϕ 2.5x ϕ 6x2.5mm.
- 4 x Flanged Bearings Ø3xØ7x3mm.



- -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.





- -2 x Blade Grip Arms. -2 x Uniballs M3x4 ϕ 5H3. -2 x Socket Head Cap Screws M3x10mm.

Linkage [H0137-S]



Damper Derlin [H0144-S]

- -2 x Damper Derlin. -2 x Washers Ø 10x Ø 16x1mm. -4 x Washers Ø 10x Ø 16x0.2mm. -4 x Orings 3050.



About HPS

-4 x Plastic Ball Links.

-2 x Linkages

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 O-ring play 0 0

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 Chapther 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.