Please read this user manual carefully, it contains instructions for the correct assembly of the KIT. Please refer to the website www.goblin-helicopter.com for updates and other important information. Thanks You.

**Uniball Radius Arm Assembly... x 2**
- Flanged Bearing Ø 2.5x Ø 6x2.5mm (HC400-S)
- Spacer Arm 2.5x Ø 4x6.3mm (H0253)
- Uniball Radius Arm (H0205-S)

**Radius Arm Assembly... x 2**
- Flanged Bearing Ø 3x Ø 7x3mm (HC402-S)
- Radius Arm (H0132-S)
- Spacer Arm Ø 3x Ø 5x2.7mm [H0134]

**Center Hub Assembly**
- Bag 2
- Bag 3
- Bag 1
- Socket Head Cap Screw M2.5x6mm (HC018-S)
- Pin 5 mm (H0413-S)
- Center Hub (H0411-S)
- Spindle (H0412-S)

**Swashplate Assembly**
- Uniball M3 (H0065-S)
- Swashplate Assembly (H0422-S)
- Uniball M3 Ø 5H18 (H0063-S)

**Main Blade Grip Assembly... x 2**
- Main Blade Grip (H0182-S)
- Main Blade Grip Arm (H0183-S)
- Ball Bearing Ø 10x Ø 19x5mm (HC422-S)

**Linkage Rod A Assembly... . . . x 2**
- Linkage Rod A Assembly (to adjust the tracking, turn this linkage.)
- Nut M4 (HC212-S)
- M3x12mm (HC062-S)
- M4x24mm (HC111-S)
- Linkage Rod B Assembly

**Linkage Rod B Assembly**
- Plastic Ball Link (H0402-S)
- Linkage Rod M3x50mm (H0417-S)
- Plastic Ball Link (H0417-S)

**Approx**
- 66mm
- 76mm

**Note:** Larger ID Inside

**Warning:**
- After a few flights, please check the preload you can add HC32 if the preload has changed.

**Bag 4**
- Main Blade Grip Assembly
- Thrust Bearing Ø 10x Ø 18x5.5mm (HC438-S)

**Bag 5**
- Main Blade Grip (H0182-S)
- Bearing Ø 10x Ø 19x5mm (HC422-S)
- Socket Head Cap Screw M4x10mm (HC102-S)

**Bag 6**
- Bag 9
- Bag 1
- Socket Head Cap Screw M2.5x18mm (HC032-S)
- Uniball Radius Arm Assembly
- Radius Arm Assembly (H0132-S)
- Washer Ø 3x Ø 4x0.5mm (HC176-S)
- Socket Head Cap Screw M3x16mm (HC068-S)

**Bag 7**
- Socket Head Cap Shoulder M5x35mm (HC116-S)
- Washer Ø 3x Ø 4x0.5mm (HC176-S)
- Swashplate (H0422-S)
- Uniball M3 (H0065-S)
- Swashplate Assembly
- Uniball M3 Ø 5H18 (H0063-S)

**Bag 8**
- Approx 76mm
- Plastic Ball Link (H0402-S)
- Linkage Rod M3x50mm (H0417-S)

**Bag 9**
- Plastic Ball Link (H0402-S)
- Linkage Rod M3x50mm (H0417-S)

**Bag 2**
- Bag 3
- Bag 1
- Socket Head Cap Screw M2.5x6mm (HC018-S)
- Pin 5 mm (H0413-S)
- Center Hub (H0411-S)
- Spindle (H0412-S)

**Bag 3**
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- Pin 5 mm (H0413-S)
- Center Hub (H0411-S)
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- Socket Head Cap Screw M2.5x18mm (HC032-S)
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- Washer Ø 3x Ø 4x0.5mm (HC176-S)
- Swashplate (H0422-S)
- Uniball M3 (H0065-S)
- Swashplate Assembly
- Uniball M3 Ø 5H18 (H0063-S)

**Bag 8**
- Approx 76mm
- Plastic Ball Link (H0402-S)
- Linkage Rod M3x50mm (H0417-S)

**Bag 9**
- Plastic Ball Link (H0402-S)
- Linkage Rod M3x50mm (H0417-S)
### ABOUT HPS2

The new HPS 2 head offers an independent dampening system for each blade grip, there are three dampening settings:

- **A** = Soft for smooth response.
- **B** = Medium.
- **C** = Firm for direct and precise response.

We recommend starting with the medium setting.

**For safety reasons we suggest to not exceed 2300 rpm.**

### RECOMMENDATIONS

- These parts should be used only with models SAB Goblin 630, 700, 770, Speed, URUKAY.
- 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 the spindle for axial play at least after the first few flights and add shims as necessary, slight axial preload is optimal. The blade grips must move freely, but they should not move just under their own weight.
- Firmly tighten the blades before flight.

### TIPS:

- To remove the dampeners, you can use a flathead screwdriver through the hole as shown.
- Clock-wise, counter clock-wise thread.
- By turning the linkages you can adjust tracking. If tracking is adjusted correctly, you’ll see the metal part line up around in the center of the opening.

### SPARE PARTS

#### Radius Arm [H0132-S]
- 2 x Radius Arms.
- 2 x Spacer Arm 3x Ø5x2.7mm.
- 2 x Spacer Arm 2.5x 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.
- 2 x Flanged Bearings Ø2.5x Ø6x2.5mm.
- 2 x Flanged Bearings Ø3x Ø7x3mm.

#### Blade Grip [H0182-S]
- 2 x Blade Grip.
- 2 x Thrust Bearing Ø10x Ø16x5.5mm.
- 4 x Bearing Ø10x Ø19x5mm.
- 2 x Washer Ø10x Ø16x1mm.
- 2 x Button Head Cap Screw M4x8mm.

#### Blade Grip Arm [H0183-S]
- 2 x Blade Grip Arm.
- 2 x Socket Head Cap Screws M4x10mm.
- 2 x Uniball M3x3.5 Ø5 H5.5.

#### Center Hub [H0411-S]
- 1 x Center Hub.
- 2 x Socket Head Cap Screws M3x12mm.
- 1 x Socket Head Cap Screws Shouldered M4x25mm.
- 1 x Metric Hex Nylon Nut M4.

#### Spindle Shaft [H0412-S]
- 2 x Spindle Shaft.
- 2 x Pin 5mm.
- 4 x Socket Head Cap Screw M2.5x10mm.
- 2 x Socket Head Cap Screw M6x10mm.
- 2 x Washer Ø6,3xØ15x1.

#### Linkage [H0417-S]
- 2 x Linkages M3x50mm.
- 4 x Plastic Ball Links.

#### Swashplate [H0422-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.
- 3 x Swasher Ø2x Ø5x0.5mm

#### Damper Derlin [H0426-S]
- 3 x H0426-A.
- 3 x H0426-B.
- 3 x H0426-C.
- 3 x Washers Ø10x Ø16x1mm.
- 3 x Washers Ø10x Ø16x0.2mm.
- 3 x Orings 3050.

#### Uniball M3x3.5 Ø5 H5.5 [H0437-S]
- 2 x Uniball M3x3.5 Ø5 H5.5.