**HF3C Rotor Head [H0825-K]**

Rotor Head Specifically Designed for F3C Competition

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.

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

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

**Center Hub Assembly**

**Center Hub**
- (H0479BM-S)

**Damper**
- (H0482-80-S)

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**Swashplate Assembly**
- Uniball M3 (H0065-S) [H0422-S]
- Uniball M3 (H0063-S)
- Head Screw M3x10mm (HC056-S)
- Washer Ø 10x Ø 16x1mm (HC230-S)
- Thrust Bearing Ø 10x Ø 18x5.5mm (HC438-S)
- Washer Ø 6x Ø 14 x1.5mm (HC194-S)
- Bearing Ø 10x Ø 19x5mm (HC422-S)

**Linkage Rod Assembly**
- Washer Ø 3x Ø 4x0.5mm (HC176-S)

**Main Blade Grip Assembly**

**Main Blade Grip**
- (H0065-S)
- Bearing Ø 10x Ø 19x5mm (HC422-S)
- Shaft (HC124-S)
- Washer 10x Ø 16x1mm (HC230-S)
- Bearing Ø 10x Ø 19x5mm (HC422-S)
- Washer 6x Ø 14 x1.5mm (HC194-S)

**Linkage Rod A Assembly**
- M4x24 (HC111-S)
- M3x12mm (HC062-S)

**Linkage Rod B Assembly**
- M3x12mm (HC062-S)

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**Note:**
The HF3C head should be assembled with one, 1mm shim (HC230) on each side. The blade grips must move freely, but they should not move just under their own weight. After approximately 10-20 flights, please check preload, you can add one or two 0.2mm shim (HC232) if preload has changed.

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**Initial length for the rods from the swashplate to the Blade Grip.**

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**Bag 1**
- Flanged Bearing Ø 2.5 x Ø 6x2.5mm (HC400-S)

**Bag 2**
- Flanged Bearing Ø 3x Ø 7x3mm (HC402-S)

**Bag 3**
- Center Hub (H0479BM-S)
- Damper (H0482-80-S)

**Bag 4**
- Uniball M3 (H0065-S) [H0422-S]

**Bag 5**
- Socket Head Cap Screw M4x10mm (HC102-S)

**Bag 6**
- Washer Ø 10x Ø 16x1mm (HC230-S)

**Bag 7**
- Main Blade Grip Assembly

**Bag 8**
- Linkage Rod A Assembly ...x2
ABOUT HF3C

We suggest you to use the Thunderbolt blades 730TB in combination with tail blades 115TB.

For hovering, it is recommended a headspeed of 1400-1500 rpm
For normal flight, it is recommended a headspeed of 1900 rpm

It is possible change the rigidity of the dampening system. In the Kit, you can find Damper H0482-80 : 80 Shore ( Red ). You can change H0482-70 ( Yellow ), H0482-90 ( Green ), for change the head characteristic.

Changing the Damper, please check the Axial preload. The blade grips must move freely, but they should not move just under their own weight. You can remove / add the 0.2mm shim (HC232) from each side for to get perfect preload.

For safety reasons we suggest to not exceed 2000rpm

Every 15/20 flights, please check the preload in the head and any play of the spindle axis. If need change the dampers.

RECOMMENDATIONS
- These parts should be used only with models SAB Goblin 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 damper.

TIPS:
* 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

<table>
<thead>
<tr>
<th>Uniball M3  [H0065-S]</th>
<th>Radius Arm  [H0332BM-S]</th>
<th>Swashplate  [H0422BM-S]</th>
<th>Center Hub  [H0479BM-S]</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 2 x Radius Arms.</td>
<td>- 2 x Spacer Arm Ø3xØ5x2.7mm.</td>
<td>- 1 x Swashplate Assembly.</td>
<td>- 1 x Center Hub.</td>
</tr>
<tr>
<td>- 2 x Spacer Arm Ø2.5xØ4x6.3mm.</td>
<td>- 2 x Head Cap Screws M3x16mm.</td>
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<td>- 2 x Socket Head Cap Screws M3x12mm.</td>
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<tr>
<td>- 2 x Head Cap Screws M2.5x18mm.</td>
<td>- 2 x Flanged Bearings Ø2.5xØ6x2.5.</td>
<td>- 6 x Uniballs M3xØ5 H3.</td>
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<tr>
<td>- 2 x Washers Ø3xØ4x0.5mm.</td>
<td>- 2 x Flanged Bearings Ø3xØ7x3.</td>
<td>- 1 x Uniball M3xØ5 H18.</td>
<td>- 1 x Socket Head Cap Screws M2x5mm.</td>
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<tr>
<td>- 5 x Uniball M3.</td>
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<td>- 3 x Socket Head Cap Screws M2x8mm.</td>
<td>- 4 x Socket Head Cap Screws M2x8mm.</td>
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<td></td>
<td></td>
<td>- 3 x Swasher Ø2xØ5x0.5.</td>
<td>- 3 x Washers M3.</td>
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<tbody>
<tr>
<td>- 1 x Spindle Shaft.</td>
<td>- 2 x Damper.</td>
<td>- 1 x Blade Grip.</td>
<td>- 2 x Linkages M3x40mm.</td>
<td>- 2 x Blade Grip Arm.</td>
</tr>
<tr>
<td>- 2 x Socket Head Cap Screw M6x10mm.</td>
<td>- 1 x Thrust Bearing Ø10xØ18x5.5mm.</td>
<td>- 1 x Washers Ø10xØ16x1.</td>
<td>- 4 x Plastic Ball Links.</td>
<td>- 2 x Socket Head Cap Screw M4x10mm.</td>
</tr>
<tr>
<td>- 2 x Washer Ø6.3xØ15x1.</td>
<td>- 2 x Bearing Ø10xØ19x5.</td>
<td>- 1 x Head Cap Screw M4x8.</td>
<td></td>
<td>- 2 x Uniball M3x3.5 Ø5 H5.5</td>
</tr>
</tbody>
</table>

Thunderbolt 730TB
Specifically designed for F3C competition.

THUNDERBOLT 730TB
Specifically designed for F3C competition.

Damper
Specifically designed for F3C competition.

Blade Grip 730TB
Specifically designed for F3C competition.