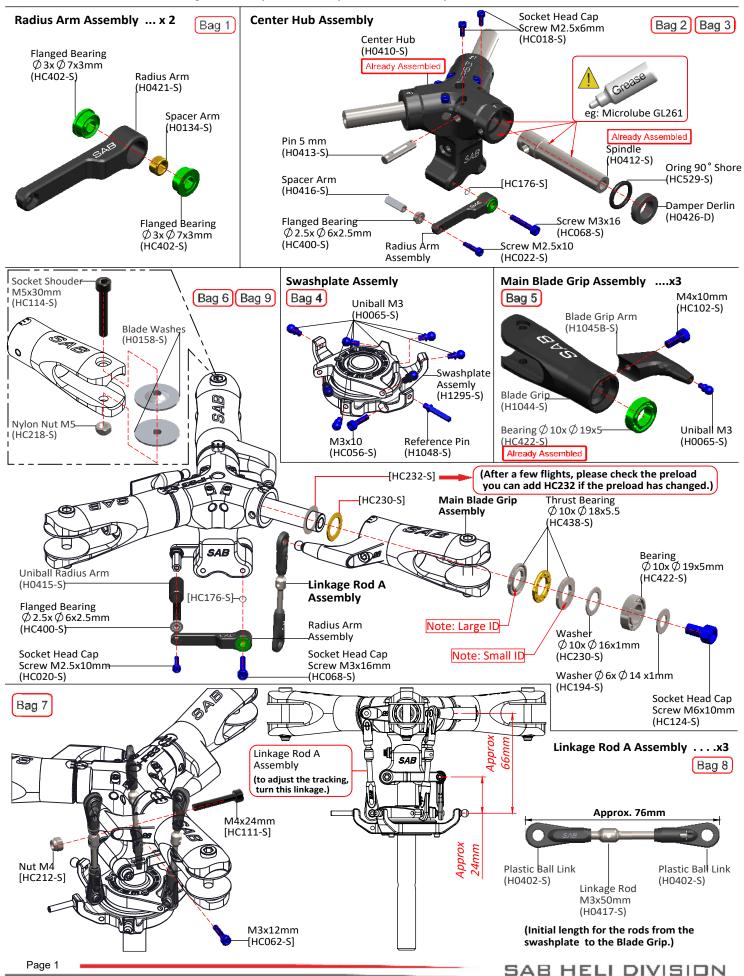
# 3-BLADES ROTOR HEAD [H1652-K]



This KIT is designed to convert the 2-blade rotor of the RAW 700 and KRAKEN 700 into a 3-blade rotor. Please read this user manual carefully, it contains instructions for the correct assembly of the KIT. Please refer to the website <a href="https://www.goblin-helicopter.com">www.goblin-helicopter.com</a> for updates and other important information. Thanks You.



## 3-BLADES ROTOR HEAD



### **ABOUT HPS3**

The new HPS 3 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.

In addition, we recommend using a smaller tail pulley in order to increase the tail rotor speed to counteract the additional torque introduced by the 3rd rotor blade.

### RECOMMENDATIONS

These parts should be used only with models SAB Goblin.

- RAW 700 (Recommended BLADES S700-3, Max 710mm).
- KRAKEN 700 (Recommended BLADES S700-3, Max 710mm).
- GENESIS (Max blades lenght 750mm).
- MAVERICK (Max blades lenght 750mm).
- 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.
- 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.

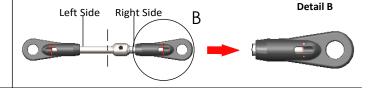
Spindle

[H0412-S]

- Firmly tighten the blades before flight.



\* 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**



- 1 x Center Hub.
- 2 x Socket M4x24mm.
- 2 x Socket M3x12mm.
- 1 x Nylon Nut M4.

Damper

- 2 x Spindle Shaft.

Main Blade Grips

[H1044-S]

- 2 x Pin 5mm.
- 4 x Head Cap Screw M2.5x6mm.
- 2 x Head Cap Screw M4x10mm
- 2 x Washer Ø6,3 x Ø15 x 1mm

Linkage [H0417-S]



- 2 x Radius Arms.
- 1 x Spacer Hex.

Radius Arm

- 1 x Uniball Radius Arms.
- 2 x Spacer Arm.
- 2 x Screws M3x16.
- 2 x Screws M2.5x10.
- 2 x F.Bearings Ø2.5.
- 4 x F.Bearings Ø3.
- **Swashplate** [H1295-S]



- 3 x H0426-A.
- 3 x H0426-B.
- 3 x H0426-C.
- 3 x Orings 90 shore.
- 3 x Washers Ø10x Ø16x1mm.
- 3 x Washers Ø10x Ø16x0.2mm.



- 1 x Blade Grip.
- 1 x Thrust Bearing  $\emptyset$  10x  $\emptyset$  18x5.5. 2 x Bearing  $\emptyset$  10x  $\emptyset$  19x5mm.
- 1 x Washer  $\emptyset$  10x  $\emptyset$  16x1mm.
- 1 x Socket Head Cap Screw M4x10.

- 2 x Linkages M3x50mm.

- 4 x Plastic Ball Links.

Blade Grip Arm 26

[H1045B-S]

- 2 x Blade Grip Arm.
- 2 x Head Cap Screw M4x10mm.
- 2 x Uniball M3x4 Ø 5 H3.5.



- 1 x Swashplate Assembly.
- 7 x Uniball M3.
- 1 x Reference Pin.