# GOBLIN SPEED TIPS FOR PROPER ASSEMBLY



SAB HELI DIVISION

## **SERIAL NUMBER**

Please take a moment to register your kit online via our web site at: http://www.goblin-helicopter.com It is extremely important that you take a moment to register your helicopter with us.

This is the only way to ensure that you are properly informed about changes to your kit, such as upgrades, retrofits and other important developments. SAB Heli Division cannot be held responsible for issues arising with your model and will not provide support unless you register your serial number.



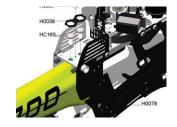
## TO ASSEMBLE THE TAIL BOOM PROPERLY YOU MUST:

First of all, tighten the nylon bolts.

The tool included in the kit (Part #HA016) is designed to provide the proper amount of torque with your bare hands. Please tighten the bolts firmly with this tool!

After you have tightened the nylon bolts you can tighten the 2 M3x12 bolts that support the lower part of the boom. Please use plenty of loctite on these bolts!

It is very important to follow this sequence, nylon bolts first, then M3x12 bolts. Remember to check the tightness of the nylon bolts and the M3x12 bolts frequently.



## **CARBON FIBER PARTS**

The edge of the carbon parts are very sharp.

Use sandpaper to soften the edges , specially in areas where wires are routed as well as in areas where the battery Velcro straps come in contact with the carbon



#### MOTOR BELT TENSION

- To maximize the life of the motor belt, it is necessary to have the correct tension.

The springs in the kit help with the initial tension (please see the manual).

At the time of locking the motor, it is necessary to help the springs by pulling on the motor by hand, the belt must be tight!

- Check for vertical alignment of the motor pulley. To do this, simply turn the motor several times (correct direction) and check to see if the belt is aligned with the big pulley (one way bearing pulley.

If the belt is riding to high, simply loosen up the motor pulley and drop it just a little bit, if it is riding too low, loosen up the motor pulley and raise it a bit.



#### TAIL BELT TENSION

- The belt tensioner (idler pulley) must be aligned with side frame. This tension works well in most cases. For hard 3D, we recommended to increase the tension allowing the tensioner to sit approximately 2 to 3 mm outside the frame. Use common sense here, the tail belt can be very tight, it will not break, it will simply cause a bit more drag during auto rotations.
- Please make sure the tail shaft is perpendicular to the boom.

The 4 screws M3x12 that lock the tail assembly to the boom tend to become lose at times, please check regularly.



## **CONNECTORS AND WIRES**

Speed flight utilizes high amounts of electrical current. During testing, we observed up to 200 amps continuous for sustained periods of time. We urge you to use heavy gauge wire (at least 8 GA) and connectors capable of handling high current. We also recommend that you keep wire length to a minimum. Make sure your solder joints are made properly with a high quality soldering machine with enough temperature.



#### MAIN SHAFT PLAY

Please make sure to lock the collar H0121 to remove any vertical play of the main shaft (please see the manual)



# PROPER LUBRICATION IS REQUIRED

- Lube the main gear and slant pinion with synthetic grease. A grease with good adhesion is preferred, such as Tri-Flow or Dry Fluid Gear Lube
- Use synthetic grease in the damper area, o-rings, spindle.
- Apply a little bit of grease to the one way gear inside the main pulley.
- it is always recommended to regularly use a lubricant spray, such as WD40 for to prevent corrosion of steel parts, such as main and tail shaft, etc.



The items outlined in this document should be checked regularly and particularly after a crash