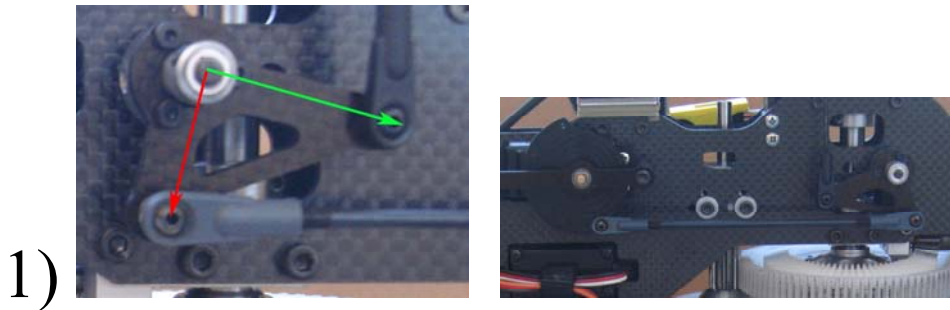


The “Bobby Watts Special” Frame Set

Attention This modification has been made especially for hard, fast 3D flying. The frame change/ bellcrank modification has not taken away any stability in the model, but is not ideal for beginners or FAI/ Pattern pilots. Servo ATV’s will drop to around 45% on the swash AFR, as opposed to 60-70% as previously used on a stock Stratus frame set. This modification is for 120 degrees CCPM ONLY at this time. We have not tested this bellcrank modification with 140 degrees CCPM. Please refer to the Stratus assembly manual for the assembly, noting these changes below.



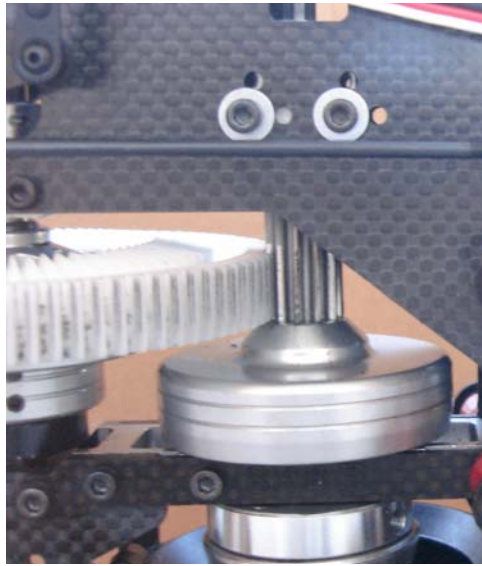
One of the biggest differences in this frame set is the modified bellcranks from the servo to the swash plate. We have shortened the input side (the red line) and kept the output length the same (the green line). What this allows for is a reduced ATV to around 40-50% on the Swash AFR, which speeds up the swash plate commands creating a more connected feeling and a faster swash plate. In order to do this without creating an excessive amount of interaction, we had to move the servos in the frame to allow the linkages to be 90 degrees to each other. Therefore, purchasing and installing these modified bellcranks will not work very well with a stock Stratus frame set.



Another part included in the kit is the (126-107) Frame Stiffener set. These are two plates that attach both on the left and right side of the helicopter. It helps keep both the top and bottom frames more rigid through hard 3D maneuvers. When running a stock OS 91 SZ motor, the Frame Stiffeners can really help your motor run better because the clutch gap can no longer change in flight, as it could without the plates. Although this new frame set is incredibly strong and will mostly never break in a crash, the frame stiffeners do help make the machine that much stronger.

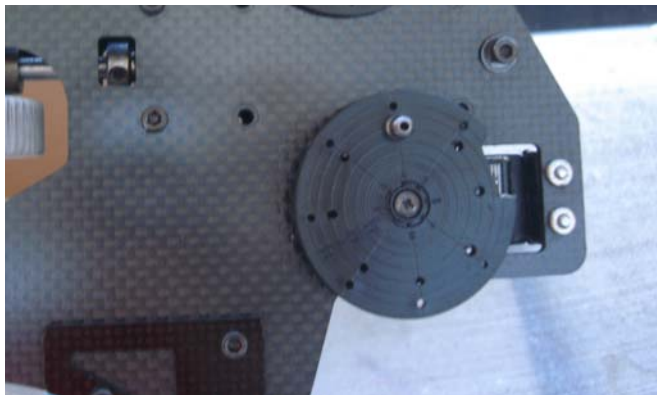
***NOTE*: These frame stiffeners replace the 126-73 Lower Fan Shroud brackets and may not be included in the kit.**

3)



Also note that there is no longer a (126-44) upper clutch plate (R&L) included in the kit. Simply put a washer on the bolt in place of the clutch plate. The back two holes (as shown above) are for the 8.18:1 gear ratio.

4)



←PEM NUT w/ SCREW

Another change to **ALL STRATUS KITS** is the tail rotor servo location. We have eliminated the bellcrank all together and it is just now a direct link to the pushrod. If you are converting your kit from a stock Stratus, you might want to order a new tail rotor pushrod assy. because the length has changed. The correct length of the pushrod from the center of each ball link is roughly 840mm. You also have to use the ball hole on the servo arm that is 15mm from the center (see picture above).

One nice feature of these frames is a PEM nut that allows a small 3x6mm screw to be inserted through it, then into the tail boom. This prevents the tail boom from sliding out. Once the tail boom is inserted, and the clamps are tightened, drill a small hole through the PEM nut, then insert the 3x6mm screw.



5)

Although the kit does include the 126-23 motor side mounts, it is not necessary to use them. Simply using the four 3mm bolts through the back plate of the motor works flawlessly and offers plenty of support for the motor. For the governor sensor mount, just use two 4mm bolts on either side of the engine.

Other than the changes listed above, the kit is a just a slightly modified Stratus. I am currently flying the aluminum tail output gear with the white delrin tail shaft gear (MA part # 123-96). I think everyone will really like this frameset, especially for the

pilots out there with fast and aggressive flying styles. Please visit www.miniatureaircraftusa.com for any updates.

Bobby Watts