

## Updates to Steps in the Scale Mechanics Manual

The following Step numbers are referenced from the steps in the main Scale Mechanics Manual.

### STEP 1-3 Main Blade Grip Assembly

From parts bag 1: Install one Long Ball and one Short Ball into the Bell Mixer, insert the slide tube into the bell mixer arm (**Note: the oilite bearings are pre-installed**) and secure onto the blade grip with one M3x16 Socket Cap screw and M3x7 Flat washer. Install two M6x13 Ball Bearings into each end of the blade grip assembly. Complete the second blade grip in exactly the same way.

### STEP 1-4 Feathering Spindle & Blade Grips

From parts bag 1: Insert the Feathering Shaft into the head block, slide one M6x10 washer on each side of the shaft. Install the blade grip (Note the direction of the bell mixer arm) followed by one M8x13 washer, one M6x12 Thrust Ball Bearing (install the first steel washer (large inside diameter) followed by the ball race, remember to grease the ball race, followed by the second steel washer (smaller diameter) and one M6 Locknut. Tighten the locknut, using the glow plug socket wrench on one nut while holding the other with pliers, tighten the nuts until both blade grips turn freely without any excessive end play.

### STEP 1-7 Flybar, Paddles and Flybar Control Arms

The kit version is already pre-assembled, for reference, using an available M3x12 Button Head Screw, insert approximately half the length of the screw to form threads into the smaller, tapered ends of the control arms and the control arm stand-offs. Assemble Pushrod A and press one ball link end onto each double studded steel ball, making sure that pressure is applied from the side of the ball link with the Century name. All ball links are designed to be installed in one direction only. While holding one flybar control arm, start threading the double studded steel ball. When it becomes difficult to turn with fingers, start the control arm stand-off and use as a driver until tight. Complete the second flybar control arm.

Slide and center the Flybar through the seesaw arm assembly inserted from the bottom of the rotor head block. Carefully look at Flybar Control Arm and notice that when installed correctly, the securing set screw is on top. Loosely tighten the M4x5 Set Screws into the round aluminum inserts directly over the flat spots that are already on the flybar. Using a ruler, check the distance between the end of the flybar and the control arm and adjust until the lengths are the same. Remove one set screw at a time, apply threadlock and tighten in place. Slide the Flybar Weight (**Tip: the flat end of the weight faces the paddle**) and thread on the Flybar Paddle until all the threads are covered onto the flybar and align the paddles parallel. Again using the ruler, rotate one paddle or the other to get equal distances, remember leading edge of the paddles turn clockwise. Using two 3x3mm Set Screws secure the weights using threadlock.

### STEP 6-1 Pushrod Setup & Adjustment

This helicopter is designed for a 46/50 size engine, as a result the following pushrod (end to end) measurements are:

<b>Pushrod</b>	<b>Code</b>	<b>Length</b>
Washout Arm to Flybar Control Arm	A	51mm
Aileron Bellcrank to Swashplate	J	62mm
Bell Mixer to Swashplate (long)	C	106mm
Throttle Pushrod	B	99mm
Collective Pushrod	D	96mm

### STEP 6-8 Assembly of ARF Main Blades

Main blades are 600mm, part number CN2324.