

**David Harding**

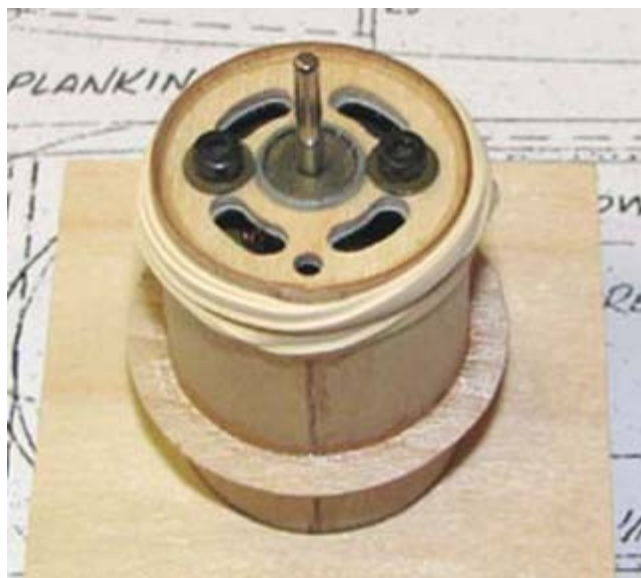
**From:** Tandy C. Walker [tandyw@flash.net]  
**Sent:** Wednesday, November 04, 2009 4:12 PM  
**To:** Undisclosed-Recipient: ;@smtp108.sbc.mail.mud.yahoo.com  
**Subject:** 9 Speed 400 Cloudster - Speed 400 Motor Mount Design Continues

*Speed 400 Cloudster Project*

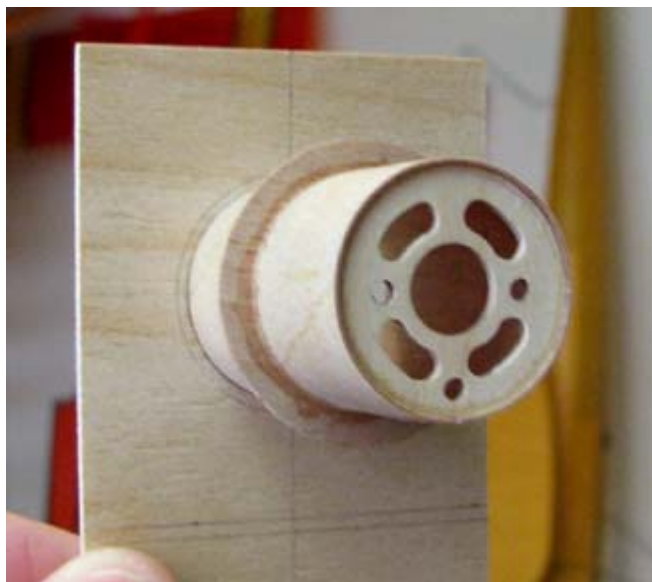
This morning, the perimeter of the disk was trimmed down and sanded to shape for a snug fit inside the front of the motor tube as shown below.



The finished disk was oriented so that the single hole lined up with the bottom seam in the motor tube as shown below and then slipped inside the front of the motor tube. The Speed 400 motor was inserted from the rear and pushed forward to contact the inside face of the disk. The motor was then rotated to align its openings with the openings in the disk and the two 2.6 mm mounting screws were screwed in. By pushing on the back of the motor, the disk was moved forward to within about a 1/16" from the front edge of the motor tube. At this point the disk was CA'd around its circumference. A rubber band was wound around the outside of the front edge of the motor tube to insure a good bond between the disk and motor tube as shown below.



Once dry, the rubber band and motor were removed from the tube in order to take this picture for you to see.



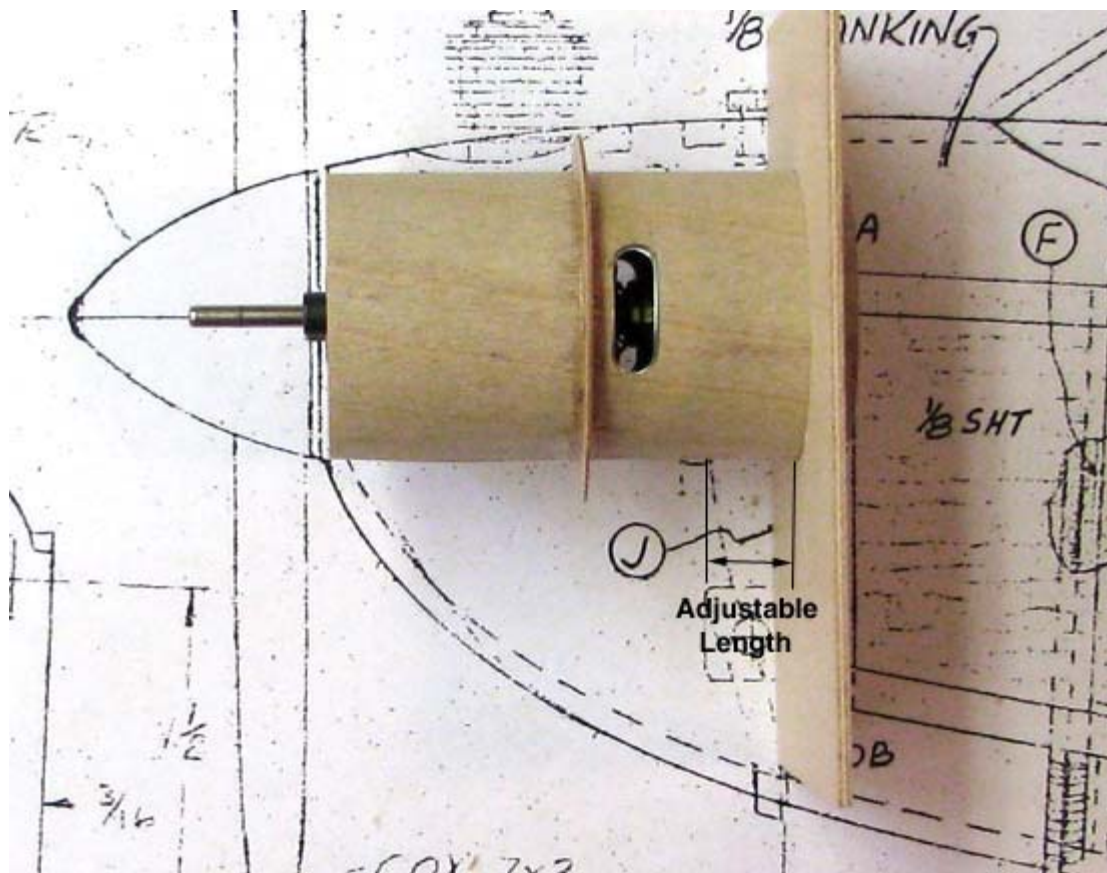
The rolled motor tube with the disk glued in the front makes this motor mount incredibly strong and it only weighs 2 grams as shown below. However, the 1/16" plywood back plate and four small gussets will probably add another 1 to 2 grams. But what the heck, I think a 4 gram motor mount represents a significant weight savings, even if it was time consuming to make.



Again, working in the blind, an iterative process of cut and fit was used to make the motor's brush ventilation slots on the side of the motor tube as shown below.



The motor mount with the Speed motor inside was placed on the Cloudster plan for a trial fit as shown below. The current unknown is how much length is going to be required to fit the 1-3/16" spinner/adaptor on the motor's shaft so the rear face of the prop is in the proper place on the plan. If you look close at my notation below the motor tube, you will see there is a fair amount of adjustable length to accomplish this.



So at this point I have to stop work on the motor mount until I receive the 1-3/16" spinner/adaptor from Hobby Lobby in about two weeks. Then I can trim up and finish the motor mount's 1/16" plywood back plate and glue it in place. This back plate is what will bolt to firewall. I plan to add four small gussets in a cruciform configuration between the motor tube and the back plate for additional motor tube support. So I guess I will turn my efforts now to building on the stab and rudder.

Speaking of Hobby Lobby, I contacted Jay Burkhart (*a electric modeler and Hobby Lobby technical consultant*) this morning to assist me in getting yesterday's order corrected for the right LiPo battery packs. I received the updated corrected confirmation from Hobby Lobby this afternoon.

**Item Description:** PL2 1350mAh 2S 7.4V

**Item Number:** TP13502SPL2

**Quantity Ordered:** 2

Thank you for your help and support in this matter Jay!.....Tandy