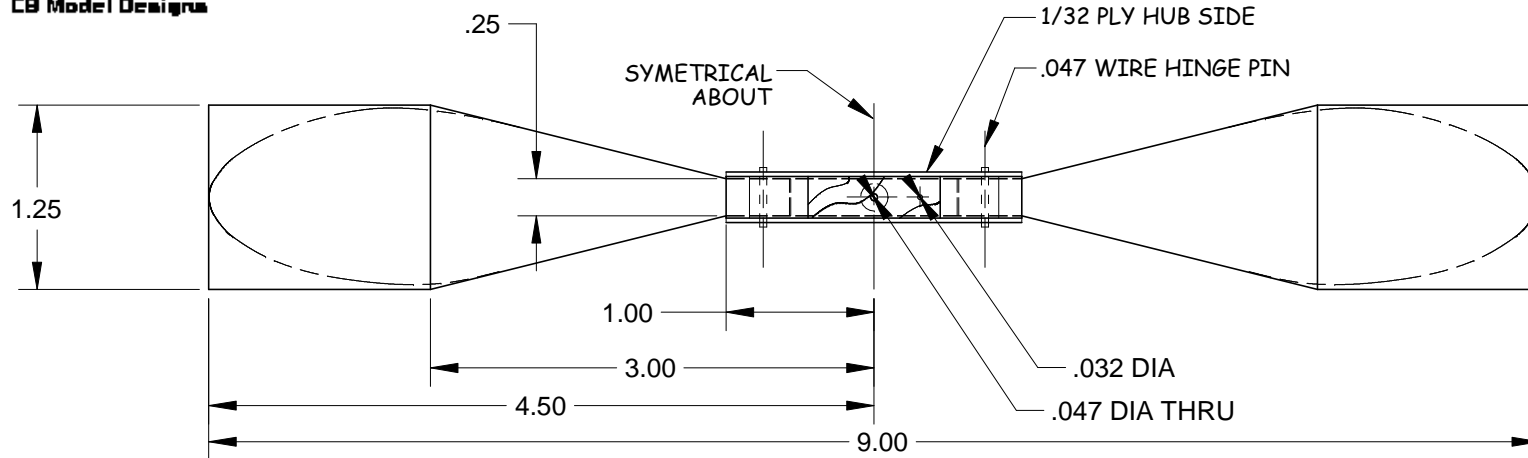
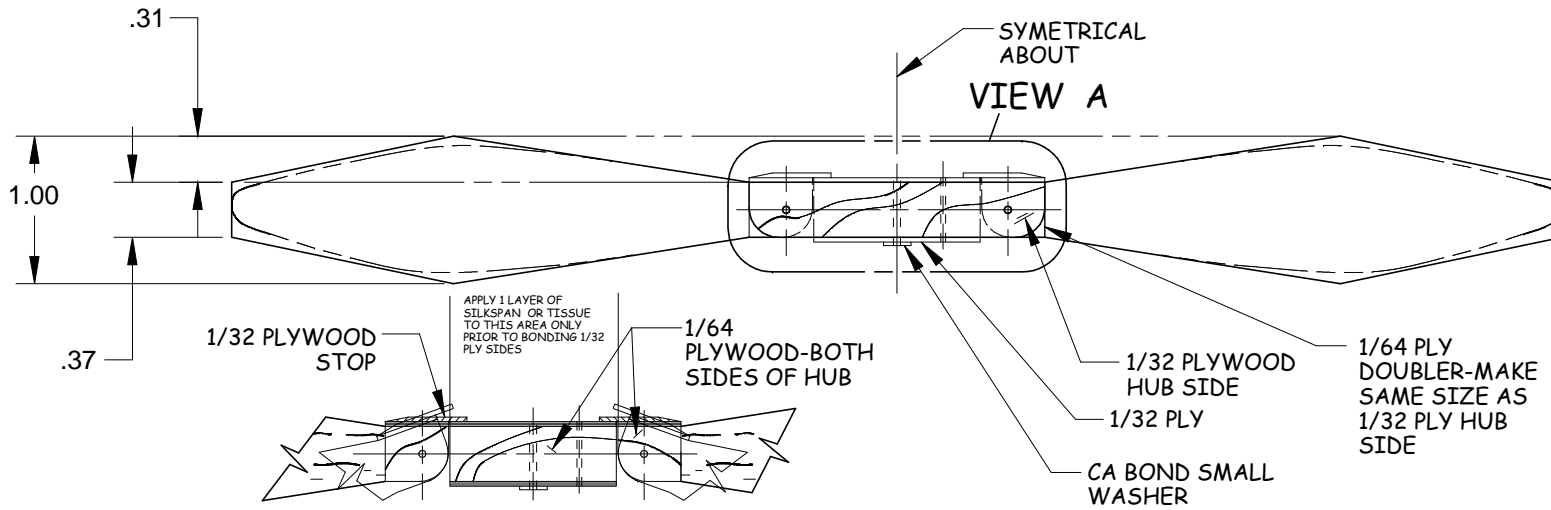


CB Model Designs



ALL MATERIAL IS Balsa UNLESS OTHERWISE NOTED



VIEW A

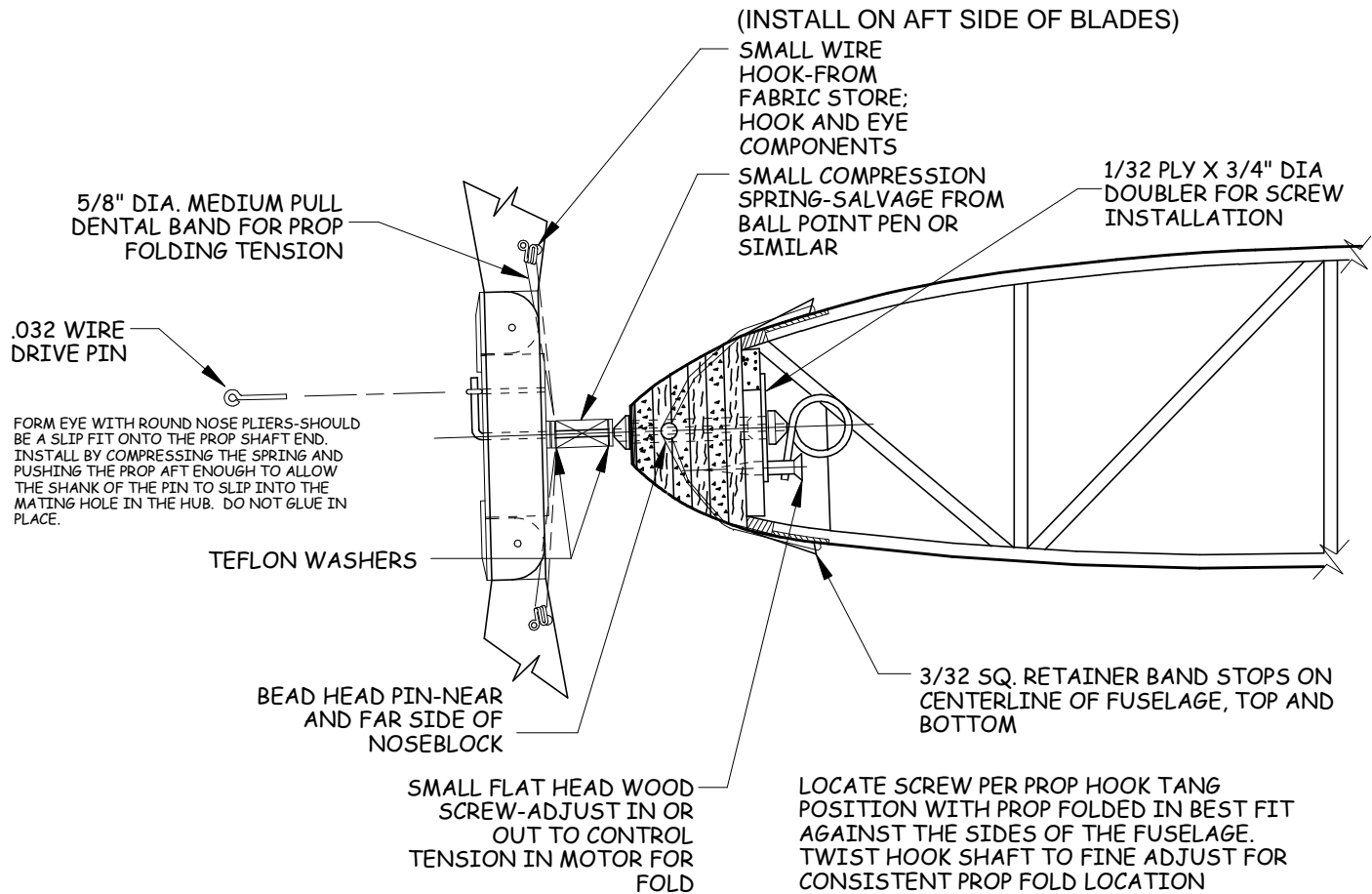
1/32 PLYWOOD HUB SIDES NOT SHOWN FOR CLARITY

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Yardstick Folding Propeller

KIT CBMD-002 SHEET 1 OF 3 SCALE: FULL

INSTALLATION DETAIL FOR FOLDING PROP



SUGGESTED PROP FABRICATION SEQUENCE

1. LAYOUT PROP BLANK PROFILE ON 1" X 1- 1/4" X 9" Balsa Stock. ESTABLISH PROP SHAFT CENTER AND DRILL .047 DIA HOLE SQUARE TO THE BACK SURFACE OF THE PROP BLANK.
2. PROFILE PROP BLANK IN THE PLAN AND SIDE VIEW. CLEAN UP THE HUB AREA FOR INSTALLATION OF PLYWOOD DOUBLERS.
3. INSTALL THE TWO 1/64 PLYWOOD DOUBLERS TO THE PROP HUB SIDE AREA, FLUSH TO THE TOP OF THE PREVIOUSLY RELIEVED PROFILE ON THE FORWARD SIDE. INSTALL THE 1/32 PLY DOUBLER ON THE FORWARD AND AFT FACE OF THE HUB; DRILL A .047 DIA HOLE ON CENTER IN THESE AND USE A PIECE OF .047 WIRE TO PIN THE DOUBLERS TO THE PREVIOUSLY DRILLED HOLE IN THE BLANK AS YOU INSTALL THEM.
4. MAKE THE TWO 1/32 PLYWOOD HUB SIDES. LAYOUT AND DRILL TWO .047 DIA HINGE PIN HOLES WITH THESE PARTS SANDWICHED TOGETHER. ON THE SIDES OF THE PROP HUB, CA LAMINATE A PIECE OF SILKSPAN OR SEVERAL LAYERS OF TISSUE IN THE AREA THAT WILL BECOME THE HUB ONCE CUT FREE FROM THE BLADES. THIS WILL ACT AS SHIMS FOR A FRICTION FREE FOLD ON THE FINISHED PROP BLADES.
5. USE ONE OF THE 1/32 HUB SIDES AS A TEMPLATE TO DRILL THE MATING HOLES IN THE PROP BLADE ENDS. MARK EACH END OF THIS PART SUCH THAT WHEN EVERYTHING IS FINAL ASSEMBLED, THERE IS NO CONFUSION ON WHICH END IS COMMON TO A GIVEN HINGE PIN AND PROP BLADE.
6. ONCE THE HINGE PIN HOLES ARE DRILLED, PREFIT THE OTHER 1/32 PLY HUB SIDE TO MAKE SURE ALL FITS AND THE HINGE PINS WILL PASS CLEANLY THROUGH THE PROP BLADE ENDS AND BOTH HUB SIDES. REMOVE HUB SIDES AND SHAPE THE PROP BLADES AND BALANCE THE PROP.
7. MARK AND CUT THE PROP BLADES FROM THE HUB AREA USING A FINE RAZOR SAW. RADIUS THE PROP BLADE ENDS AND PREFIT WITH THE 1/32 HUB SIDES AND HINGE PINS FOR FREEDOM OF MOVEMENT. INSTALL THE 1/32 PLY STOPS ON THE FORWARD SIDE OF THE PROP BLADES. BOND THE 1/32 HUB SIDES TO THE HUB WITH THE BLADES ASSEMBLED AND PINNED.
8. DRILL THE .032 DRIVE PIN HOLE INTO THE FORWARD SIDE OF THE HUB. CA / MICROBALLON BOND A SMALL WASHER ON THE AFT SIDE OF THE HUB ON THE PROP SHAFT HOLE. FINAL BALANCE THE PROP AND SEAL THE PROP ASSEMBLY WITH FOUR COATS OF UNTHINNED DOPE. INSTALL THE TWO TENSIONING BAND HOOKS ON THE AFT SIDE OF EACH BLADE.
9. ASSEMBLE THE PROP ON THE NOSEBLOCK WITH THE TEFLON WASHERS AND SPRING. BEND THE FORWARD END OF THE PROP SHAFT SUCH THAT SOME MINOR FORCE STILL REMAINS IN THE SPRING AND THE SHAFT TANG WILL BE AGAINST THE STOP SCREW ON THE BACK OF THE NOSEBLOCK. PUSH THE PROP ASSEMBLY BACK ON THE SHAFT, INSTALL THE DRIVE PIN INTO THE MATING HOLE IN THE HUB. DO NOT GLUE IN PLACE AS THIS MAY NEED TO REMOVE FOR PROP SHAFT REPLACEMENT.
10. PRIOR TO INSTALLING THE STOP SCREW, INSTALL THE FINISHED NOSEBLOCK ASSEMBLY INTO THE FUSELAGE AND FOLD THE PROP BLADES AGAINST THE SIDES. BEST FOLD IS WITH THE HUB ON A DIAGONAL ORIENTATION AND THE BLADES AGAINST THE SIDES OF THE FUSELAGE. MARK THE POSITION OF THE PROP SHAFT TANG ON THE BACK OF THE NOSEBLOCK. INSTALL THE STOP SCREW AND CHECK THE POSITION OF THE PROP AGAIN ON THE FUSELAGE. IF NECESSARY, TWIST THE PROP SHAFT TO BEND THE HOOK END SLIGHTLY AND FINE TUNE THE FOLDED PROP POSITION FOR CONSISTENT POSITIONING.
11. DURING FLIGHT TRIMMING, ADJUST THE STOP SCREW IN OR OUT TO BRAKE THE PROP WHEN THERE ARE A MINIMUM AMOUNT OF TURNS IN THE MOTOR, AND THE MOTOR IS NOT DRAPED AGAINST THE BOTTOM OF THE FUSELAGE. PROP FOLD TENSION MUST BE POSITIVE AND THE PROP STOW COMPLETE TO HAVE CONSISTENT GLIDE TRIM.

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