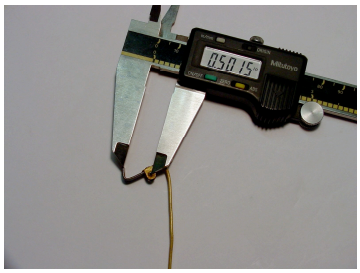
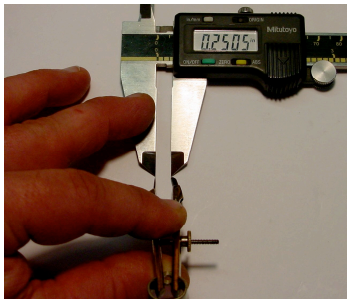
Determining Lift Angles on the Half-Deadbeat Anchor
By David J. LaBounty, CMC FBHI

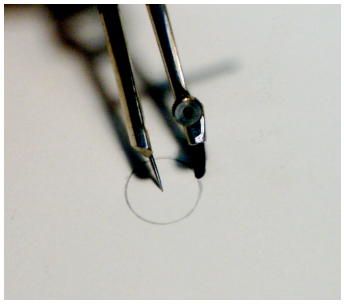
Accurately measure the distance from the center of the pivot point to the middle of the thickness of the pallets.



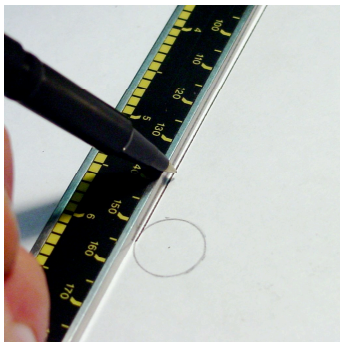
Divide that value in half and adjust a set of calipers to match. This value will produce a 2 degree lift angle. In half again will produce a 1 degree lift angle and so on. With this method, any angle may be produced.



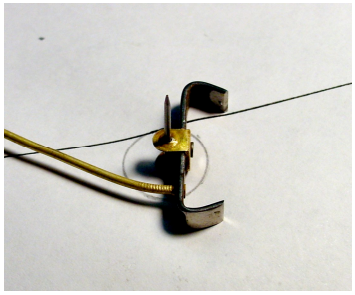
Scribe a circle.

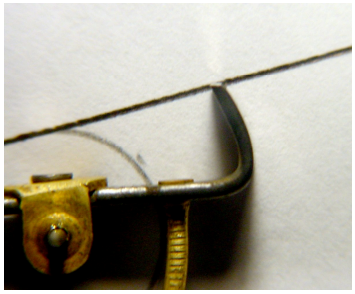


Draw a fine-lined tangent.

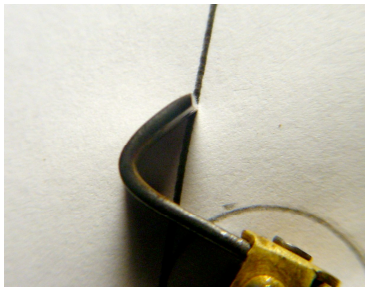


Use a smooth broach, or other sharp, tapered tool, and poke it through the paper in the exact center of the circle. Slide the pallets over the tool and rotate until the lift surface touches the line.

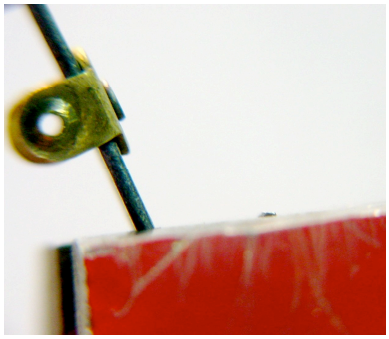




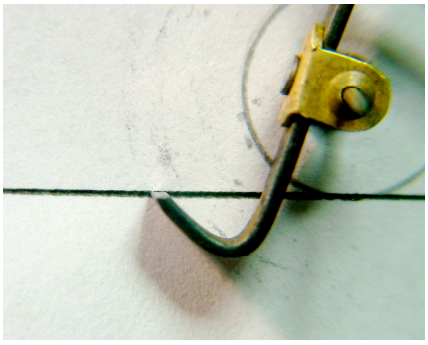
Examine both entrance and exit pallets to see if the angles are proper. Make a note of which portion of the pallet to file in order to correct the angle.



Use the jaws of a vise to help file off the proper amount and angle.



Check both lift angles on the same side of the tangent line.



Finish the process by polishing the lift and lock surfaces to a mirror-like finish.