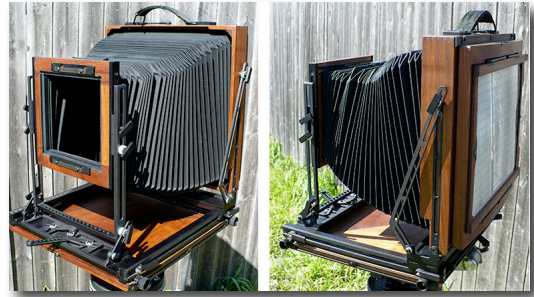


NOTHING HERE REMAINS THE SAME; PERSONALIZING MY K.B. CANHAM 8X10

THE FRONT FRAME

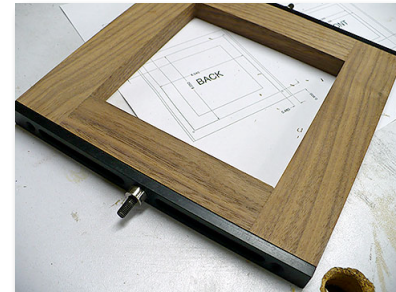
Never let it be said that anything that I own has not been modified or rebuilt. Not that I am really into tearing things up, I just like for my equipment to work in a manner that suits me. View cameras are a very personal piece of equipment. When I am out working in the field, I want the equipment to be as transparent as possible. The fit and feel of the equipment must be intuitive to the point that I give it little conscious thought. I want 100%, or more, of my mental abilities applied to the right brain task of making images.



When I recently picked up a mint condition KB Canham 8x10 Traditional camera it was because its design was such that I felt it would be worth using. The ability to focus a 6 1/2" to 30" lens without much jockeying of the mechanism was enough to sell me. Let alone it is smaller when folded and near three pounds lighter than

my current 8x10.

But like any view camera I have ever owned, there are those few little things that needed to be modified. First and foremost, the stock camera uses Sinar lens



boards. Everything we have has been standardized to the Wisner board. Not that big a problem. Just build a new front standard frame to replace the original. Modification of the existing frame was not really an easy fix, so I decided to make a new one from scratch.

I was off to the local wood store for a slab of rough-cut black walnut. After disassembly of the front standard, I spent a few hours making a few measurements and a few CAD drawings. Then I made a drawing of the new frame with the correct dimensions for the boards we use. It took a couple of

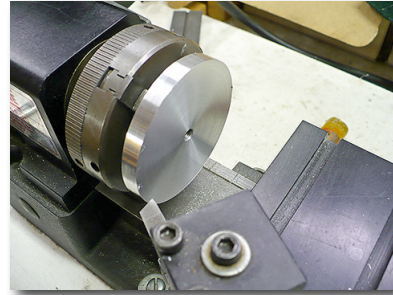
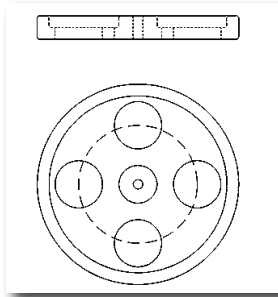


days of wood hacking and finish work and that was all done. The new front frame looks just fine to me, and now all of the lenses we have fit. And, I have the original frame, just in case it is ever needed.

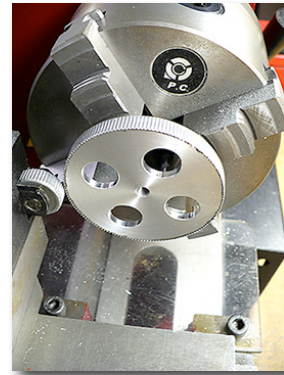
REAR STANDARD STABILITY

All machines are designed to perform some function. In the design of any device, there are always design goals, which are determined to be important. I absolutely love the fit, finish, and functionality of my K.B. Canham 8x10 camera. It does everything I need it to do and it does it very well. The only thing that troubles me is the rear standard.

When locked in place, it feels extremely unstable. I have read of others having concerns with this, but no one seems to have ever lost a photo because of the somewhat rickety back standard. The camera only has to be absolutely still while the shutter is open. All of this being said, I still wanted to beef up that back.



After much thought I came up with a fix to beef up the rear standard base. The trouble is that the locking mechanism that locks the rear swing is too far from the end of the main base. This allows the base to twist when force is applied near the top of the back. There is a lot of leverage and force applied to the



base. The fix would be to clamp the rear base closer to its end point and to clamp it not only in its center, but across its width. This would stabilize the base plate and form a rigid mate with the rear shift plate below.



My idea was to add a large thumbwheel at the end of the standard to lock the rear swing and get rid of the lever lock that is factory installed. Since the rear base plate is 2 inches wide, if the thumbwheel were about

2.125 inches, then it would protrude enough to get a good grip on it to loosen or tighten, and would not interfere with the camera operation.



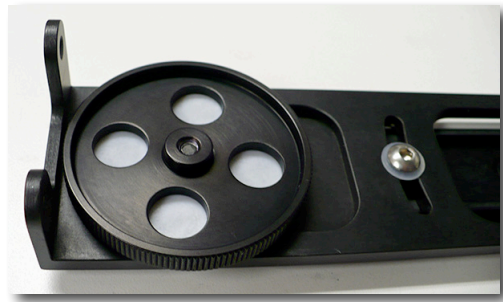
After making a few measurements and looking

carefully at the rear standard base assembly, I whipped up a quick CAD drawing of the thumbwheel. It took a few hours to machine the thumbwheels from some aluminum stock and then it was off to making a few modifications to the camera base assembly.



In order to make this change to the rear standard I had to add a #10-32 x 5/8" flat head machine screw to the rear main shift base plate. This required I machine a threaded bushing to hold it in a cleared area strategically placed near the end of the shift base plate. This forms the stud that the thumbwheel rides on.

Next I had to machine a radius slot in the rear standard base plate. This allows the rear swing to still work when the thumbwheels are loose. By moving the swing lock slot farther outward toward the end of the base, the camera rear swing is lessened from the factory specifications. From the factory, the rear swing is specified to be 20° total. After my modification the rear swing is now about 16°. Not a problem for me, I will gladly give up a few degrees of rear swing to achieve more rigidity.

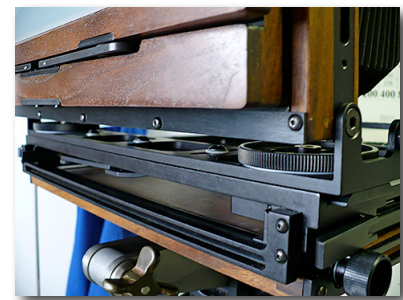


With all of the metal machine work complete, I needed to make a large Teflon washer to go between the thumbwheel and the rear base plate. I had some 0.0625 inch sheet Teflon from which I made two washers with a diameter of 2 inches. Once fully assembled, it was clear that the rear standard was much more stable. I was quite happy with the results of this rework.



Next I had to anodize the new aluminum parts. I have done a lot of anodizing over the past few years and it was just a matter of setting up my anodize rig and waiting for the process to do its magic. A quick buff of the new parts, a little locking compound on the stud assembly, some lubricant on the moving parts, and the camera is back in action.

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When something doesn't quite fit your expectation, you just may have to make a few modifications. Now I am ready to hit the road with my new, lighter, modified, camera. . . well. . . almost!

GROUND GLASS SPRING BACK

The springs in the ground glass back mechanism were a little rough feeling to me. I like the design very much and the fact that there is plenty of forward pressure exerted on the film holder will hold it firmly in place once seated. But the springs felt stiff and gritty and I was sure they could use a little work.

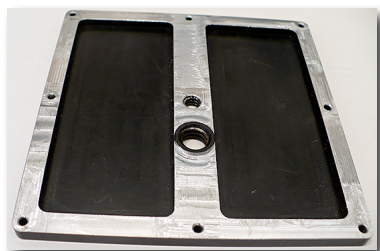


The back springs are contained within a brass-tubing keeper into which an aluminum plunger transfers pressure to the camera back assembly. These brass keepers had rough edges at their ends where the plungers rode and the springs had rough edges that needed polishing. After a little clean up and a good lubing the back now works like a dream.



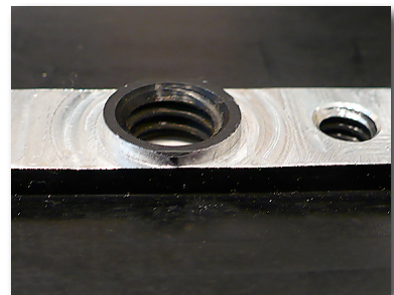
BASE MOUNTING PLATE

Here we go with one other very small detail that I did not like. The camera mounting plate is a nicely fitted 4" square of aluminum, tapped for both 3/8-16 and 1/4-20 mounts. I use a Ries 'A' model tripod most of the time for 8x10 and I have the tripod top plate rimmed with leather. This allows a flat-based camera to bear against the far edges of the top plate, which mates camera and tripod firmly. The Canham mount plate was



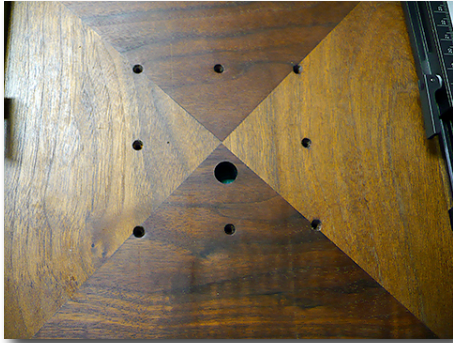
not flush with the wooden base of the camera. It was about 0.05" above the wood. I am sure the reason would be to protect the wood from the tripod, but it did not work well with my setup. I wanted the camera mounting plate flush with the wooden base.

The Canham mount plate was not flush with the wooden base of the camera. It was about 0.05" above the wood. I am sure the reason would be to protect the wood from the tripod, but it did not work well with my



So, here we go again. I quickly determined that recessing the wood any deeper could compromise the

structural integrity of the camera base, so all that was left to do was thin down the plate. Not that hard, just mill off 0.050" of material!



The thing is I did not want to sacrifice any of the threads in the 3/8-16 mount. I clamped the base plate in the mill and removed the correct amount of aluminum leaving the 3/8-16 mount at its original thickness. Then I dressed the aluminum around the 3/8-16 mount using a rotary table. This left a 0.50" hub which I now had to relieve into the wooden base so the plate would fit flush.

One other thing that I did not care for was the fact that the mounting hole for the tripod did not go through the wooden base. I like to see the light coming through the hole to locate the camera on the tripod head. This was an easy fix. I just drilled all the way through the wooden base with a 0.50" Forstner bit and the fit was just right.

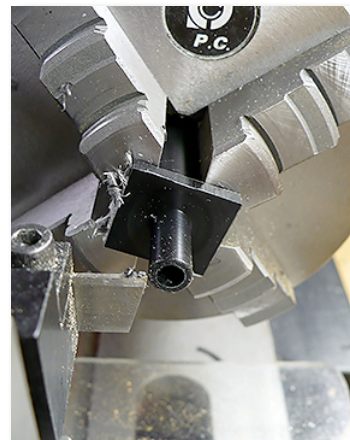


LENS BOARD AXIS TILT LOCK



One thing I noticed was it seemed to take a lot of torque on the front standard lens board axis tilt to lock it into place. There is a ball plunger arrangement that locates the zero position, but the detent was a little shallow for my taste. I machined a little deeper slot into the detent making the zero position more positive.

I also found that the lock was metal against metal. I decided that a Delrin washer would smooth out the torque on the locking thumb screw and make for a better, more positive, lock. I machined several small washers from some Delrin stock and finally found the correct thickness that allows the locking thumb nut to tighten in a position that would not interfere with the rise and fall lock.



FRONT STANDARD WITNESS MARK

One last thing that I thought the camera was lacking was witness marks on the front standard. When I am in the field working, I like the camera operation to be as transparent as possible. I do not want to be distracted fumbling with the camera. I also want the lens centered with respect to the back. I am used to having a set of witness marks on the front rise to tell me when I have the lens centered vertically.



I carefully centered the front rise, locked it in place, and then took the entire assembly off of the camera. Once securely clamped in my vertical mill, I drilled shallow dimples exactly across from each other, then filled them with white enamel paint. Perfect!

SUMMARY

I am sure that sounds like a long way to go just to make a camera more user friendly, but that is how I think and work. I will repeat myself again by saying, I want the equipment to be as transparent as possible when I am working. When I am out in the field working, I am usually consumed by whatever I am looking at photographing. I need to stay focused on the image.

There are times when you have to catch the light, which is always changing, at just the right moment. This requires you be able to efficiently and quickly get the camera into place and ready to expose film. Distractions with equipment are annoying and frustrating. I have a specific working mindset that I have developed over the years that allows me to concentrate on what I am doing. By keeping my equipment working in a specific manner, I am not distracted fumbling with the hardware. There are times when seconds count.

One word of caution; *I would never recommend that anyone modify or attempt to adjust their camera unless they are confident they possess the skills, and tools, necessary to properly perform the work.* You can easily damage the mechanisms, which can be costly to have repaired. I have many years experience designing and building mechanical devices. I also have the necessary tools and machines available in my shop. This discussion of my modifications, to my camera, is presented here as an example of what can be done if you have the necessary tools and experience. If you decide to modify your camera, please be forewarned, be sure you know what you are doing

JB Harlin