

STEREO PRO TECH NOTES

Please note that this is not a complete guide on the construction of this camera, but merely an introduction to what is involved. This is merely a personal project, so I do not offer full instructions on how to make this camera, and do haven't the time to help others who attempt their own versions. Please assess your own abilities before risking both time and money on such a consuming project!



This project was born out of frustration. Although medium format stereo is the ultimate to many regarding truly realistic stereo, there are few options for the serious modern stereographer. This camera has many desirable features such as good quality modern optics, high shutter speeds and some automatic features. The prism allows for more accurate focusing and subject framing. Although very bulky compared to standard stereo cameras, I believe the results make lugging it around worthwhile !

An ongoing project, you can expect many revisions and refinements over the next few months.

CAMERA TYPE: Medium Format Stereo, 120 Rollfilm.

FORMAT: 55x57mm stereo pairs

STEREO BASE: 63mm

DIMENSIONS: 230mm x 190mm x 110mm

LENSES: Yashinon 4-element 80mm f/3.5 coated lenses.

SHUTTER: Copal with 1/500 to 1 sec plus B

FILM ADVANCE: Automatic advance stops at pre-selected spaces.

PARTS REQUIRED: Three Yashika TLR cameras, brass and aluminum stock, brass screws, Metered TLR prism, epoxy, lubricants.

MINIMUM TOOLS REQUIRED: Metal files, drills and bits, taps, Dremel, hacksaw, lens wrenches, vise.

TOTAL HOURS FOR CONSTRUCTION: 80 hours so far

PROs: Top quality lenses and construction, metered prism, flash-synched shutter speeds to 1/500. Automatic advance. Large negatives suitable for contact prints for stereoscopes. It also has a waist-level viewfinder as an accessory

CONs: Bulky and moderately expensive to make.

BRIEF CONSTRUCTION NOTES:

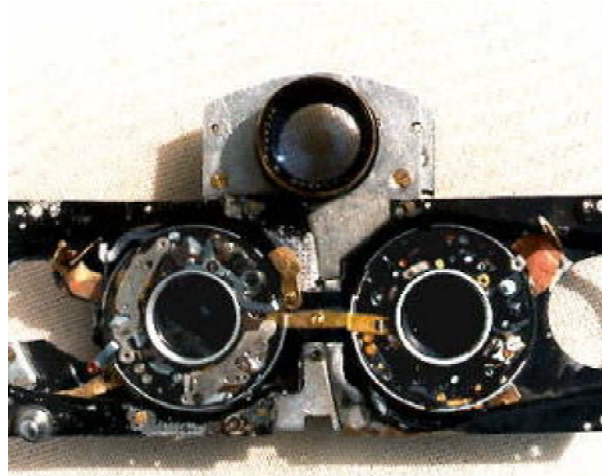
While a full description is far too involved for the purpose of this page, these notes should at least give the reader an idea of what is involved.

All three cameras must be first stripped of all parts. The two main body chassis must be cut and fastened together with the viewer ends out, using both bolts and epoxy. A space must be cleared for the mirror chassis, and the third TLR body is cut to supply the mirror chassis. Extensive dremelling was need to accomplish this.

A hole must be drilled to run the focusing bar from one end of the new chassis to the other. The focusing assemblies must be rearranged so one is on each end. To accomplish this, two new plates must be made from aluminum stock and fastened inside each end. Holes are drilled and the focusing assemblies are then fastened in place. New slots have to be cut in the chassis to allow the focus brackets to extend out the front. New cover plates are then designed and installed for the camera sides.

A third roller is installed between the two image frames on the film plane. Two of the original backs are cut and fused together, using the flat ends only. This is reinforced with aluminum plate. The TLR back latch is modified for use as a side latch. One pressure plate has to be reduced to make room for the other.

The lensplate light baffle is reconstructed using the three existing baffles. These are cut and fused into an inverted "t" shape. This is repeated with the lens covers. The actual lens boards must be reinforced with aluminum plate while cutting to fit inside the modified cover.



The optics are removed from the lens chassiss. The right lens must be stripped of all parts except the shutter blades, iris, and flash contact assembly. The shutters are then installed and aligned. The shutter bodies must be modified to allow for the linking arms between the aperture blades on both shutters as well as the irises. A new cocking lever is made that is triggered from the side, which is then connected to the old cocking lever by a lever/cable arrangement. The aperture arm is also extended on the opposite lens chassiss to allow control at the right side. The original shutter release is reinstalled at the bottom left of the new lensboard and linked to the shutter trigger. The flash contact from the right shutter is linked to a new pc outlet on the left top.

The prism is modified to fit in place of the original TLR waistlevel finder. An original tripod mount is reinstalled in the bottom center of the chassiss. An existing spool knob is installed on the bottom right side of the chassiss. New cover plates are cut and installed on all remaining sides. The advance gear is altered to allow the advance to skip a frame each advance. A bubble level was attached to the top plate.

After extensive testing and alignment, the camera is covered and finished.

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