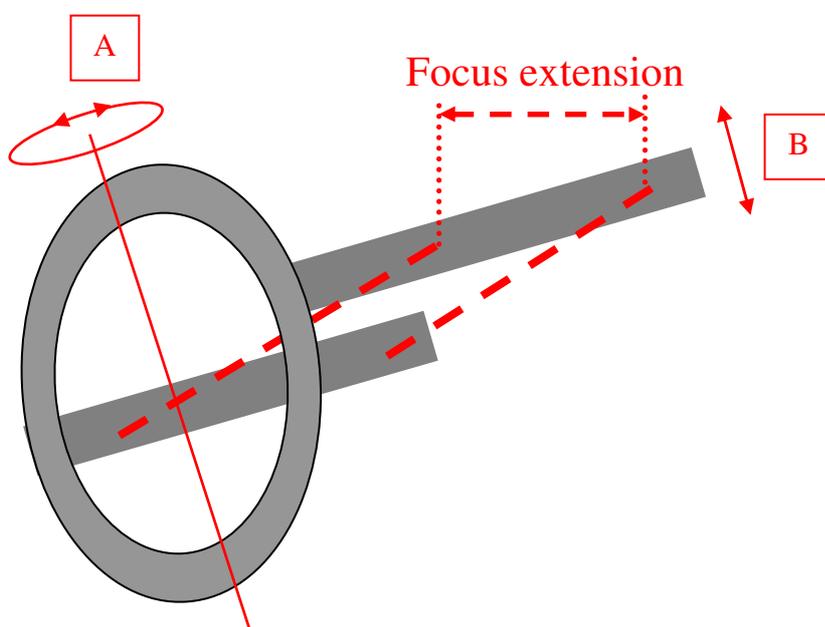


Bring a sloppy Zenzanon lens back to life

By M.Vettore

The Seiko #0 shutter is embedded between the optical groups and of course it moves with them. In order to focalize the assembly shutter optical groups is moved forth and back, to be precise back to focalize infinity and forth to focalize closer.

The mechanical coupling between camera body and shutters is provided by two pins on the lens back, those pins are built on a ring with two arms; the arms transmit the movements to the shutter. The system of course twists and bends a little, and this is the reason why Zenza Bronica recommends don't mount more than one extension tube at time: shutter may not cock at the extreme end because the rotation is insufficient to reach the shutter cocking position.



PIC 1

Sometime an old lens suffers the following syndrome: the shutter cocks when the lens is retracted; extending the lens to focalize closer the shutter doesn't cock.

If you cock manually the shutter pushing the 2 pins it works at any extension but cocked by the camera it fails.

That happens because the shutter is worn out; and the ring with arms too. After decades of use the system loses its rigidity twisting and bending around its fulcrums (see A and B on PIC 1).

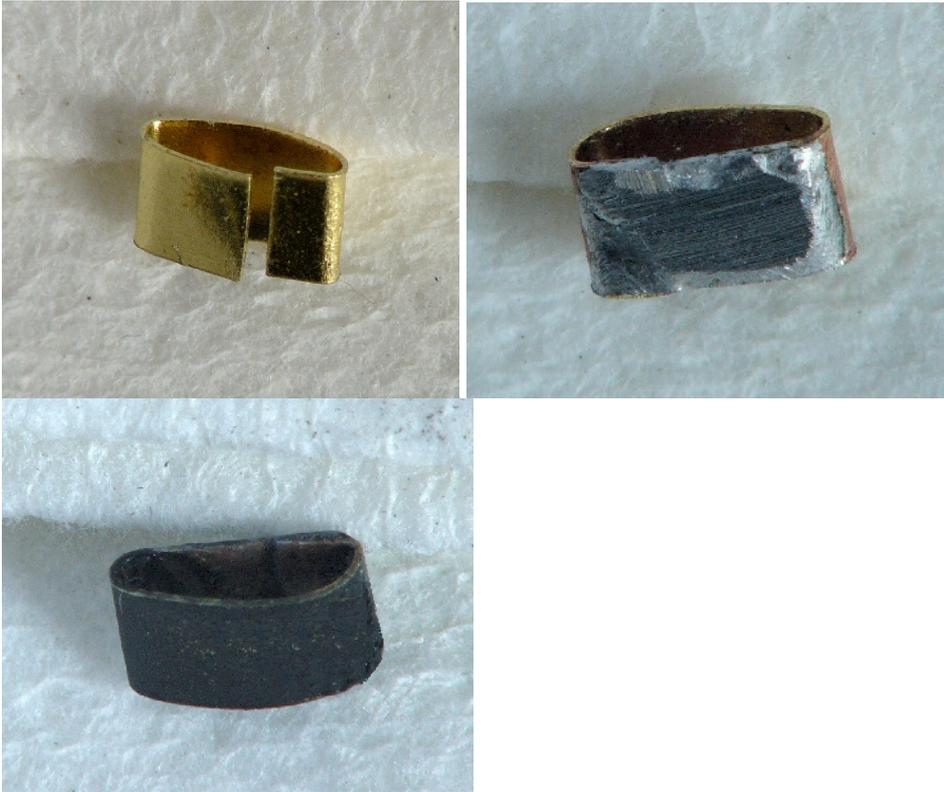
Sometime even replacing the shutter with a new one doesn't resolve the issue.

The shutter has an adjustment to fine tuning the spring contrasting the cocking action but this control is factory sealed and very difficult to adjust, and by the way it requires to unassembly the shutter.

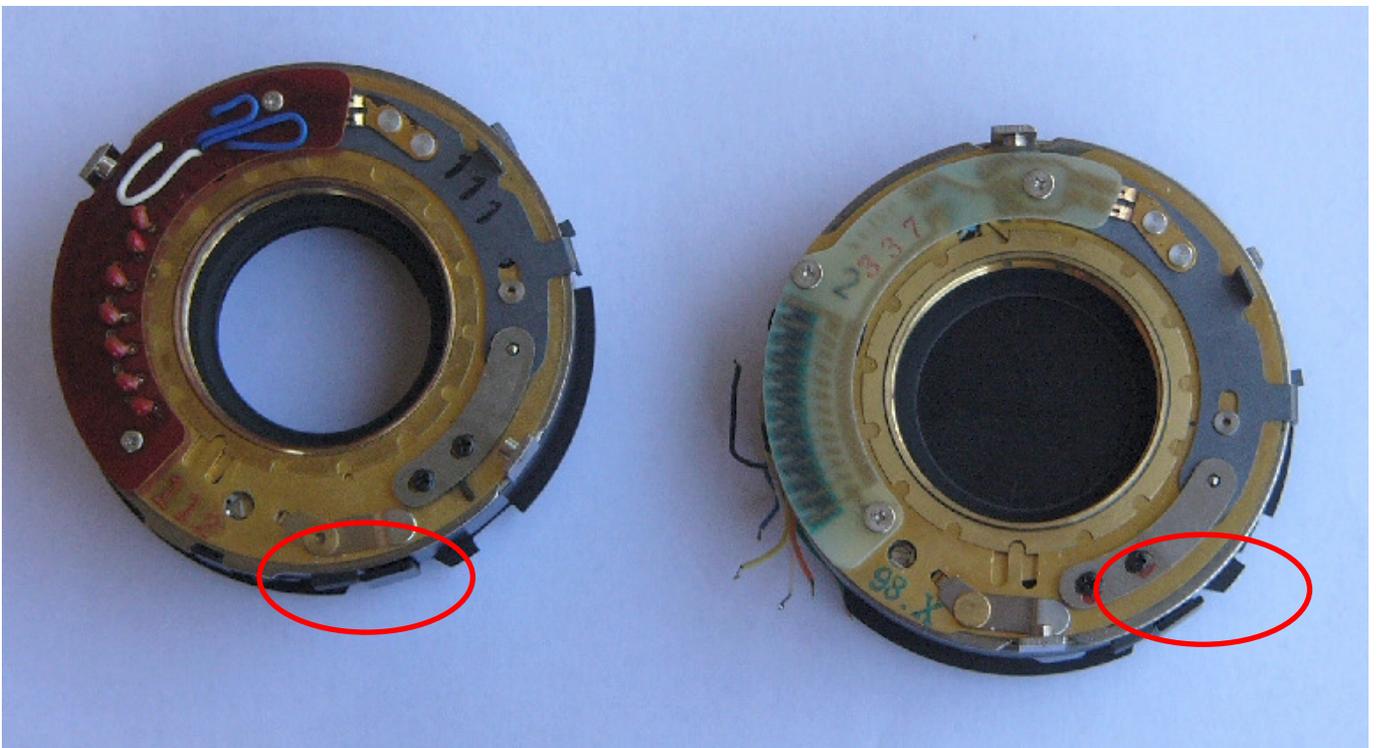
I've found an easier solution putting a spacer outside the shutter.

The spacer is a little brass ring acting as a sleeve for a cocking lever stub.

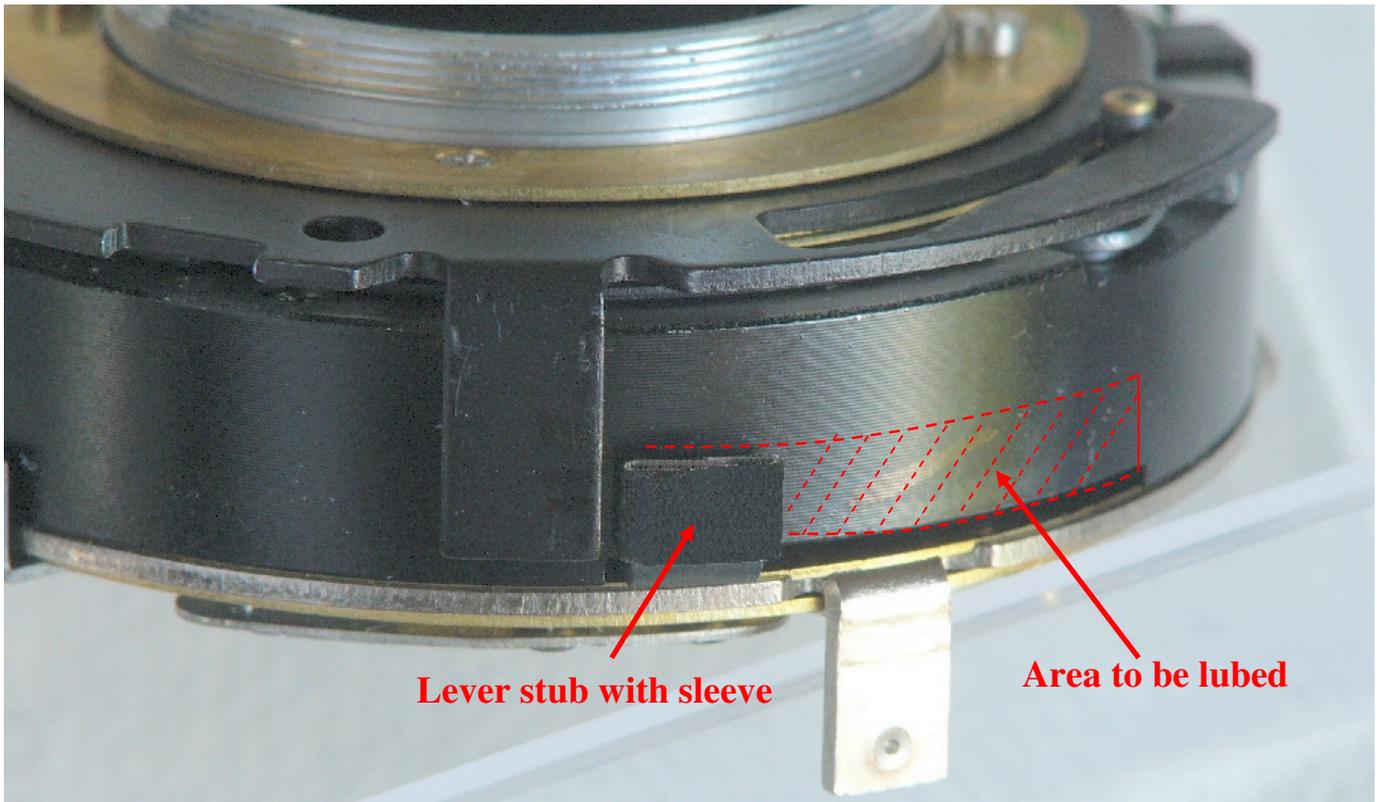
I got a sheet of raw brass 2.5mm (1/10 of inch) thick from a model shop; I've cut a little strip, bent, soldered and painted.



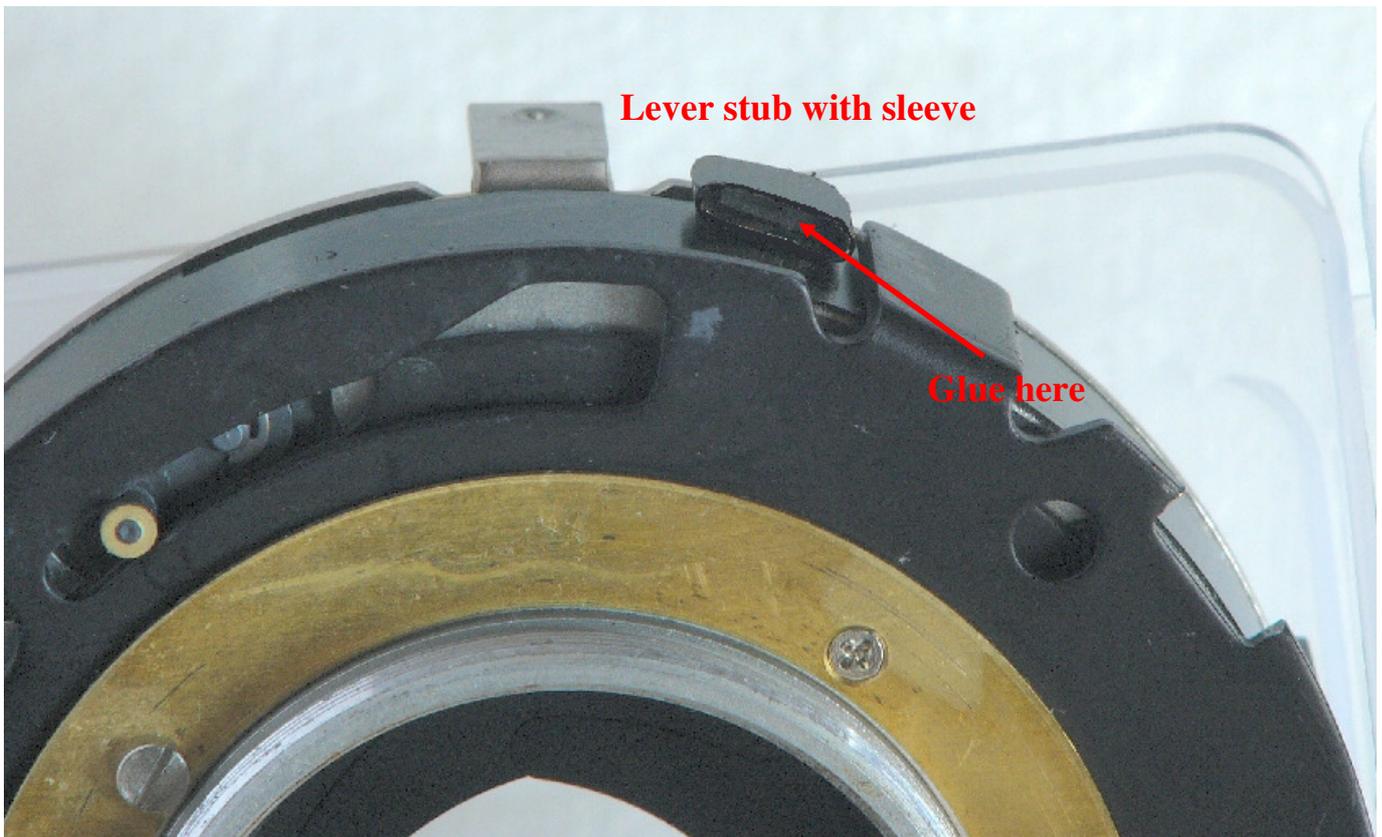
Strip dimensions are about 15mm (0.6") for 4mm (0.16") but those are only for reference because the sleeve must be adapted to the lever stub to increase about 1mm (0.038") its width.



PIC 2 Left: old shutter style (cocked), right: new type (uncocked). In red the location of the lever stub.



PIC 3



PIC 4 The sleeve from the other side of the shutter.

Instructions:

1. Unassembly the lens (just in case see my instructions [here](#)).

2. Modeling the sleeve on lever stub shape, don't exaggerate the side extension it adds, check it doesn't smear against the shutter body, exercising it manually. Sold and clean it and try again. Again don't exaggerate it can stress the shutter and the camera. If you like black paint it even it isn't on an area where it can flare.
3. When you are enough confident on the result, mount the shutter back on the lens without solder the wires, also mount the back ring. Manually cock the lens and mount it on the camera body. Without any film back, set the camera for multiple exposures. Point the camera to a light source and dry shot looking through the back; you should see the shutter open for a while (the default time 1/500 of sec.). Try it several times **cranking the camera at different focus extensions from infinity to closer distance**; the shutter should cock at every lens extension.
4. Extract the shutter again and put a drop of instant glue to lock the sleeve and avoid it slips out (see PIC 4); when dried put a little layer of silicon grease on the shutter body area where the sleeve runs (see PIC 3) manually exercise the shutter to spread the grease.
5. Reassembly the lens as step 3 and try again.

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