Horseman 2x LF Teleconverter 150 - 300
by Daniel W. Fromm

1 The device and how to mount it

When I squandered $25 on one of these little bijoux at a camera show I didn't know exactly what it was or how it was to be used. Google searches, a quick look at cameraeccentric.com's 1988 Horseman catalog, http://www.cameraeccentric.com/html/info/horseman_2.html
and fiddling with it brought some enlightenment.

Figure 1: Horseman 2x LF Teleconverter

The device is a 2x teleconverter intended to be used with a 150 mm lens in #0 shutter. It consists of the teleconverter itself and two adapter rings. The TC is a tube with glass inside; Horseman says seven elements in five groups. It is threaded in front, screws into the rear of the rear adapter ring. The rear adapter ring screws into the front adapter ring. The front adapter ring, in turn, replaces the shutter's retaining ring.

Figure 2: Horseman TC on lens

The Horseman TC is fixed to the rear of the lens and the TC-lens assembly moves away from the film to focus closer. In this it is quite unlike teleconverters for small format cameras, which are fixed to the camera body. With them the lens moves away from the front of the TC to focus closer.

To attach the TC to the lens one unscrews the lens' rear cell, unscrews the shutter's retaining ring and replaces it with the TC's front adapter ring. Horseman says that this is easily done in the field. Perhaps, if one travels with the appropriate spanner. The front adapter ring has a set screw that can be used to prevent the ring, hence the shutter and lens, from turning on the board. After the front adapter ring has been attached to the shutter and holds it snugly on the board, one replaces the lens' rear cell and attaches rear adapter ring and TC to the front adapter ring.

The TC's front adapter ring fits the rear of a #0 shutter (threaded M32x0.5), won't fit a #1 (threaded M39x0.75). Using the TC behind a 150 mm lens in #1 would require a custom-made front adapter that simulates a #1 retaining ring and that fits the rear adapter.

2 Use of the Teleconverter, compatible lenses

Horseman says that it "Enables you to convert most 150mm focal distance lenses up to 300mm." I read this to mean that spacing between the lens' rear element and the TC's front element is not very critical, i.e., that it might be usable with any lens in #0 whose rear cell will fit inside the adapter rings; their inner diameter is 50 mm.

Figure 3: Horseman TC with front ring in place on the shutter

Figure 4: Horseman TC dissasembled

Surprisingly, none of the user reports that Google returned mentioned that the TC can be used only with lenses in #0. In addition, none of the users tried it with any focal length but 150 mm.

One report on it (http://photo.net/large-format-photography-forum/0039Bm) says that its flange to film distance with a 150 is approximately 300 mm. That user liked it but recommended a slow process lens as an alternative. He later (http://www.largeformatphotography.info/forum/showthread.php?t=8146) had nothing good to say about it. This user (http://www.galerie-photo.com/michele_vacchiano.html) seems pleased with his.

The only way to find out whether it is worth using is to use it. The obvious thing to do was to try mine with some lenses in #0, not all of them 150, to find out whether it can be used with other focal lengths.

The TC forms an image with a 105/4.5 D.O.I. in #0 and a 150/5.6 Comparon in barrel (rear threaded like a #0) screwed into it. With those lenses it seems to roughly double image size. It also works with a 180 and 210 Beryls held in front of it but not with a 240. Flange-to-film distance with the 210 is roughly 1 m for a subject 5m from the film and with the 210 it gives much more than 2x. Not as hoped.

What intrigued me most about the TC after I understood how to attach it to a lens was the possibility of putting it behind my longer front-mounted lenses. Poor reasoning - my mistake - gave hope that the TC might work behind them. Experiments, although not done as well as possible, were more than sufficient to convince me that the Horseman TC is best used only with 150 mm lenses.

3 The TC in the marketplace

1988 list price $229.95
http://articles.chicagotribune.com/1988-07-22/entertainment/
8801160926_1_slr-cameras-hard-copy-prints-video/1

The article says "Calumet is also offering view camera users a 2X teleconverter. The Horseman 2X LF teleconverter turns any 150 mm. lens of standard design (lenses mounted in a No. 0 shutter with a rear-element diameter of 50 mm. or less) into a 300 mm. lens. Published tests show excellent image sharpness, but one drawback of the teleconverter is a two f-stops loss of speed. This may be acceptable to many, however, considering the unit‘s $229.95 retail price. Typical 300 mm. view camera optics go for about $1,000 these days."

B&H listed new @ $464.95 in their 3/1998 Sourcebook
http://www.bhphotovideo.com/FrameWork/Product_Resources/SourceBookProPhoto/
Section03bLgFormatView.pdf

One sold 3/2010 on eBay for $350.00

MPEX offered a used one (complete) 11/2010 @ $249.00

KEH offered a used one without adapter 11/2010 @ $76