

THE LINHOF TECHNIQUE

Data Sheet No. **8**

Special hints on camera adjustments (for the advanced photographer)



If the previous Data Sheets have been studied thoroughly, no difficulties will arise in observing the following suggestions:

LATERAL ADJUSTMENT OF THE LENS STANDARD ON THE TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$

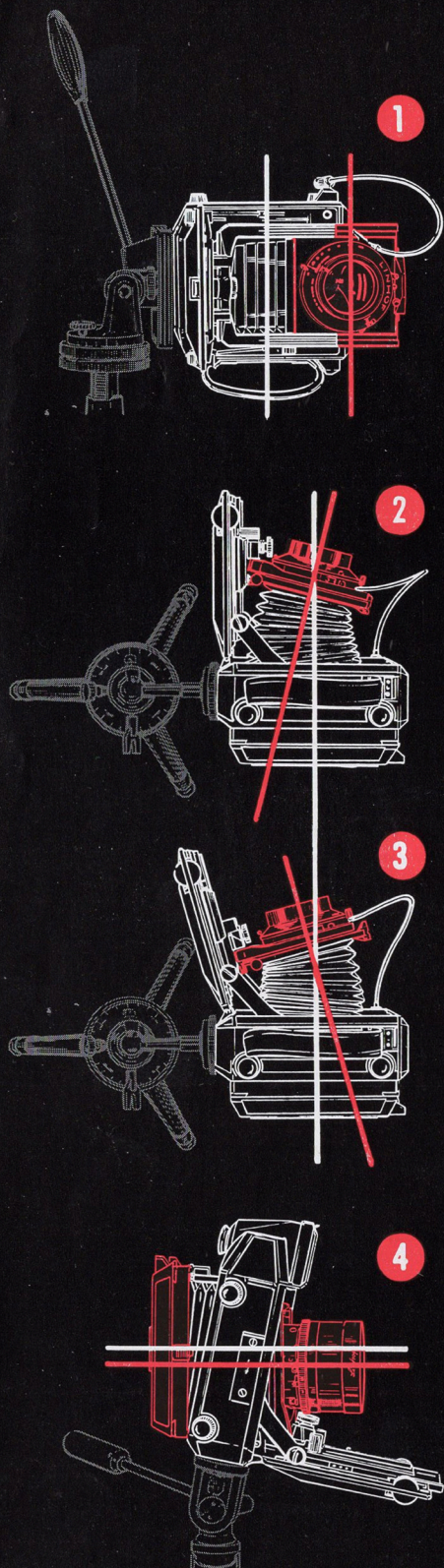
The lens standard of the TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$ cannot be shifted laterally as on the TECHNIKA cameras $9 \times 12 \text{ cm} / 4 \times 5 \text{ in.}$ and $13 \times 18 \text{ cm} / 5 \times 7 \text{ in.}$ However, this does not mean that the owner of a TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$ cannot carry out lateral adjustments. In order to achieve this the camera should be used with a suitable tripod head (for instance the LINHOF Tilttop or Pan Cine Head) and tilted 90° in order to obtain the position as shown in fig. 1. By this procedure the rising front is used as a lateral adjustment. Naturally the camera must be tilted 90° to the left or right, depending on which side the lateral shift of the lens is required.

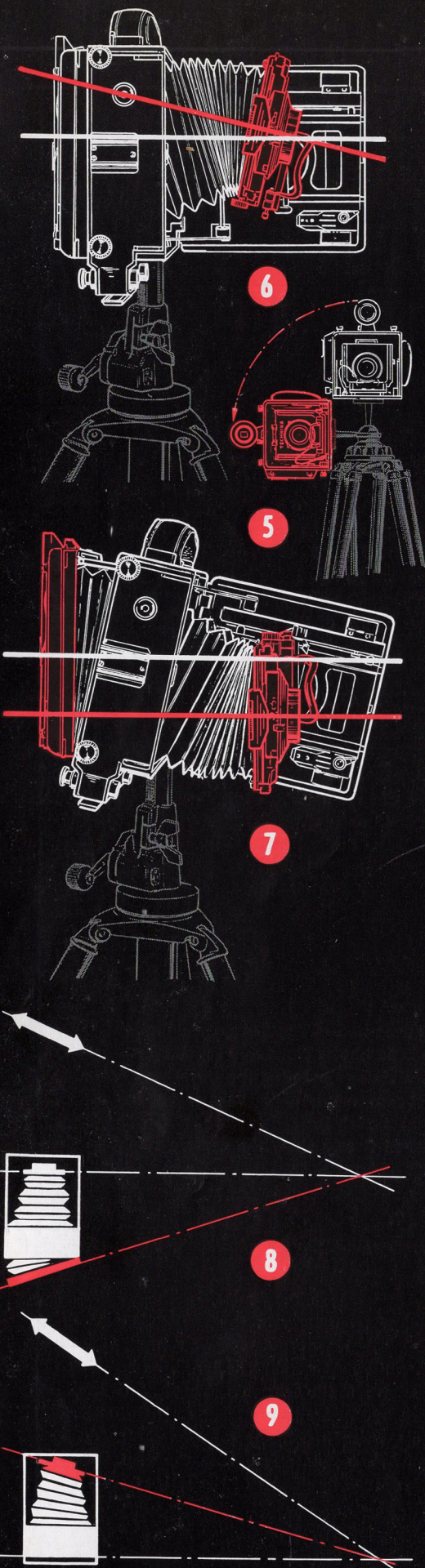
SWIVEL OF THE LENS AROUND THE NODAL POINT ON THE TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$

Swivel of the lens around the nodal point on the TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$ as indicated in Data Sheets No. 4, 5 and 6, can be achieved as well, although a swivel front is not considered in the construction of this model. In this case too, the camera must be tilted 90° . (Leather handle preferably on top). When tilting the lens standard backward by means of the adjusting knob the desired swivel movement around the nodal point of the lens is achieved. Fig. 2 illustrates this procedure more accurately. (View from above). Should the lens be swivelled as shown in fig. 3, the drop-bed will be inclined until it clicks into the second notches of the bed struts after the camera has been tilted accordingly and thus the final position of swivel movement is obtained. In order to get the desired effect the adjusting knob of the lens standard allows an easy control as to the degree of swivel movement required. The setting as shown in fig. 3 also allows a parallel position of the lens standard on the TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$ by operating the swing-back. Frequently combinations with a lateral shift of the lens are desired. (See Data Sheets No. 4 and 5). Combined shift of the lens standard to the right is quite possible by operating the elevation knob of the lens standard. Combined swivel and shift movements of the lens to the left are also possible by merely tilting the camera 90° to the left instead of to the right. The camera screw of the tripod head must be tightened firmly since the camera might become loose when tilted to the left.

FALLING LENS STANDARD WHEN USING THE BIOGON AND ANGULON WIDE-ANGLE LENSES ON THE TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$

It is possible to lower the optical axis of wide angle lenses in the TECHNIKA $6 \times 9 \text{ cm} / 2\frac{1}{4} \times 3\frac{1}{4} \text{ in.}$ in the following manner: Contrary to the instructions to drop the bed of the camera when using a wide angle lens, the camera is opened as with a normal lens, i. e. until the struts click into the first notch. The lens standard is now tilted backward by turning the adjusting knob and the camera's swing-back is brought parallel to the inclined lens standard. (See fig. 4). By this procedure the optical axis is lowered from the center of the ground glass. When tilting the lens standard backward, the drop-bed in „normal position“ does not interfere with the angle of view of the wide angle lens. (Focusing is only possible by means of the ground glass.)





DOWNWARD TILT OF THE LENS STANDARD ON THE TECHNIKA 9x12 cm/4x5 in. AND 13x18 cm/5x7 in.

This adjustment was not obvious to many photographers. Therefore this Data Sheet will give detailed information on how to proceed: There are many cases where such an adjustment must be used, for instance, to increase the depth of field without changing the perspective, (see fig. 9) or in order to obtain a parallel position of the lens to the adjusted camera back. This will be accomplished as follows: The camera, preferably with the carrying handle on top is tilted 90° by means of a tripod head. (See fig. 5). By this procedure the swivel movement of the lens around the vertical axis has changed to one around the horizontal axis and thus a downward tilt of the lens standard has become possible — also in combination with other movements of the lens. (See fig. 6).

FALLING LENS STANDARD ON THE TECHNIKA 9x12 cm/4x5 in. AND 13x18 cm/5x7 in.

When using short focal length lenses and consequently short bellows extensions or when a downward adjustment of the lens is required the photographer may proceed as follows instead of merely inclining the drop-bed: Tilt the camera 90°, (leather handle preferably on top), swivel lens standard and set the camera-back parallel to the position of the standard. (See fig. 7). The lens can be lowered somewhat more by the micrometer adjusting knob on the lens standard, normally used for a lateral shift.

INCREASE OF DEPTH OF FIELD BY CAMERA ADJUSTMENTS WITHOUT DISTURBING THE CONTROL OF PERSPECTIVE:

The increase of depth of field by tilting and swinging the camera-back (see fig. 8) always results in an alteration of the perspective of the picture. (See Data Sheet No. 6). However, this is not always desired. If the perspective must remain unchanged, the adjustment of the lens standard should be carried out as illustrated in fig. 9. The required tilts and swings of the camera-back must be observed on the ground glass.

LENSES WITH AMPLE COVERING POWER SUCH AS THE SCHNEIDER-SYMMAR LENSES ARE RECOMMENDED FOR ALL CAMERA ADJUSTMENTS. (REFER TO DATA SHEET No. 7).



Further LINHOF Data Sheets will follow! Please collect them for future references.
Missing copies will be supplied upon request.

LINHOF K.G. Precision Camera Works · Rupert Mayer Straße 45 · Munich 25 · West Germany

Beyond details given in the LINHOF Data Sheets you will find many interesting reports on the every day technique of the professional photographer in the English-language Edition of GROSSBILD TECHNIK, a new photographic magazine entirely devoted to exacting colour as well as black and white photography with the large negative camera. We suggest to obtain a sample copy from your nearest dealer or by writing to The Editor, GROSSBILD TECHNIK GMBH, English Edition, Munich 25, West Germany.