Basic and Laser Surveying
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LENKER RODS

Lenker rods are not a new item and have been used for many years with levels and transits. The main feature of the Lenker rod is that it allows the operator to read elevations or portions of elevations directly. Another feature is that there are no subtractions and this may help reduce error possibilities. The Lenker rod differs from a conventional rod in the following ways:

1) The tape is numbered from the top down.

2) The tape is a continuous loop that can be moved so that any number can be placed at the line of sight.

3) The tape can be connected (locked) to the bottom section of the rod.

Some Lenker rods have 10 ft. loops and some have 15 ft. loops. The 10 ft loops can only read 10 ft difference in elevation while the 15 ft loops can read 15 ft difference in elevation. The 15 ft loops have to be adjusted by 5 ft to read elevations correctly when going past the 0-15 ft mark.

The field book does not need columns for "back sight", "front sight", or "height of instrument." The reference of some point on the tape should be recorded to determine if the tape lock has loosened and the tape reset.

At turning points (TP), the procedure would be to determine the elevation. Then after the instrument is moved, loosen the tape and set the same reading at the line of sight. The constant will be unchanged.