

Machine Dossier for BEM2a-53
(Benton Pantograph)

Part III: Practice

Chapters 1–4: Moving and Installation

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III.1• Rigging and Moving Notes

TO DO

III.2• Installation and Millwrighting

TO DO

III.3• Identification of All Controls

TO DO

III.4• When Can the Machine be Safely Cycled?

III.4.A• General Warning

Given a complex old machine, it seems to be human nature to poke at it, twiddle knobs, and see how it moves. Unless you already know the machine well, ***this is always a Very Bad Idea***. Don't do it.

In the case of some machines, such as a Linotype, you can do yourself serious injury. Mergenthaler trained as a clockmaker, and a Linotype is a two ton spring-loaded beast waiting to bite you.

But in all cases, not just with overwhelmingly big machines, the machines themselves can also suffer damage. Although made of cast iron, they can be surprisingly delicate. Turning a typesetting machine over by hand when the pot is cold can break parts. Nobody is making these parts any more.

The Benton vertical pantographs are perhaps less dangerous, but they are also potentially more delicate.

III.4.B• When Can You Move the Head?

The "head" assembly of the Benton (the part that holds the matrix jig and the quill, between the four pantograph rods) should be moved up and down *only* when the pantograph mechanism is in a vertical position.

If you try to move it with the pantograph mechanism swung out to a side, it may bind. The Head is a relatively heavy assembly and this binding might easily bend the four rods or cause damage to the gimbals.