

CHAPTER XI

THE PUMP STOP

Making the Pump Stop Adjustment

QUESTION: How do you make the pump stop adjustment? It seems simple, but I have run into complications. — T.S.I., Portage La Prairie, Manitoba.

HARDING: This may be because you did not make the adjustment in the right position. With machine at normal, push in the clutch and go around to the side. Reach under the first elevator jaws and push the right-hand vise jaw hard to the right. Now the pump stop lever should clear the block by about $1/32"$. This is the way it will be at casting position. Set the adjustment screw; then check again, and finally cast a line in the machine and watch.

Setting the Intertype Pump Stop

The Intertype stop operates on an entirely different principle. Here the pump stop lever is toward the front under the block always except when a loose line goes in. It is operated by the first justification lever. To set it, pull the plunger pin and turn the machine over without a line in the jaws. When the justification levers reach full height on second justification, the pump stop lever should go forward to within $1/32"$ of the pin.

Pump Stop Is Set Properly but Fails to Operate

QUESTION: My pump stop fails to operate. The lever binds against the block and will not slip under it as it should, so every line casts — tight or loose. What should I do? — T.R.T., Wessington Springs, S. D.

LOOMIS: This is from wear in the pot pump cam and cam roll, which lowers the pot pump lever itself. The stop lever bracket is to some extent adjustable, and should be set so that the stop lever just comes under the stopping block without binding. Note that the lever generally has some slop in it, so turn the machine over a few times and observe if it lies flat as it returns to position under the block. Otherwise it might rise up and hit the block and fail to go under.

Check the pot pump lever cam roll. If dry, it may be dragging on and wearing the cam. Keep a thin film of oil on the cam surface itself. I know The Book says this is bad, but it is not so if the cam roll is in good shape and is lubricated

so it turns freely. *Interesting note:* In late years certain machines have come equipped with a felt wiper to lubricate this cam. Oil keeps the cast iron of the cam from wearing away — and this can happen especially fast after the first 1/16" or so is gone.

When it does wear down, one can buy a "banded" cam, but if the cam is not too far gone (down to the spokes, you might say), buy an oversize cam roll from Lino Parts, and remember to oil the cam. *Always*, in installing a new cam roll, get a new pin to go with it. A new cam roll will almost never turn properly on a worn pin.

HARDING: You can, with a rat-tail file, elongate the bolt holes in the pump stop lever bracket, so it can be lowered. *But watch:* if you let the pump lever rest too low, the plunger will cover or partially cover the holes in the side of the well, and you will not get a good slug. An oversize cam roll is called for.

Too Much Clearance Between Pump Stop Lever and Block

HARDING: See that there is never more than 1/16" clearance between the lower face of the block and the upper face of the pump stop lever. If there is, the pump may descend far enough on a short line to expel a little metal; then the next line may bring a back squirt. 1/32" is better here.

Pump Stop Lever Is Clear of the Block but Does Not Return

LOOMIS: Occasionally an old cam roll is so badly worn that a new roll only — not oversize — is needed. Take the cam roll to the garage and have it miked. A new roll (not oversize) measures 2.000". One half of the wear, roughly, will be increased 50% at the pump stop lever. In other words, if the old roll measures 1.970" (rather unusual but not phenomenal situation), the difference at the block will be about .022", almost two points.

Pump Stop Should Have Compushency

The pump stop, when you push over the end with your thumb (to the right), should have definite pressure. The steel wire spring on the pump stop lever sometimes is out of its groove, encased in linotype metal, or broken. See that it is operating, and oil both the screw on which the lever is hinged and the bolt on which the long operating lever is hinged.

Auxiliary Pump Stop Spring Not Needed

LOOMIS. Some operators, aware of a deficiency in the spring but not knowing how to remedy it, have installed an auxiliary spring. This is usually much too strong, and when it is, it damages mats, causes the end mat to fall off, and perhaps other troubles. It is not necessary when the proper spring is working.

LINECASTING OPERATOR-MACHINIST

Compiled by

EDWIN B. HARDING

Professor Emeritus of Journalism and Printing

South Dakota State College

Edited by

NOEL M. LOOMIS

Linecasting Machinist

Minneapolis, Minn.

STOCKTON BOOK PUBLISHERS . PITTSBURGH, PENNSYLVANIA
