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Pressman's Toolbox

The horizontal blur

By Frank Bourlon

The horizontal blur generally occurs from a side movement between the plate to blanket cylinder such as a side-lay correction whenever registering a color image during the press run. Loose blankets, printing plates or even a mechanical problem with the plate or blanket cylinders can cause this problem.



Blurring can occur if side movement exists between the plate to blanket cylinder.

It is evident that the very first thing that needs to be done is to check the blankets to make sure that they are tight, which means the use of a torque set at approximately 45 inch-pounds.

Second, the plate lockups should be checked to ensure that the lockup is applying the appropriate amount of tension to hold the printing plate firmly in place.

If the plate or blanket cylinder is moving laterally while the press is running a horizontal blur will occur. One possible cause is looseness in the side-lay control.

If there is slack whenever the side-lay control is repositioned for register purposes it could cause the horizontal blur. The slack can be removed by re-shimming the side-lay control. The shims that hold the cylinder bearings

in place are another possible cause, since it will allow the cylinder bearings to move inside the bearing housing.

Obviously, if the bearings move so does the cylinder. When additional shims are added, be extremely careful not to add too many shims since the excess shims will cause too much pressure, which could reduce the life of the cylinder bearings.

Correction

In my last column ("Getting a handle on dampening controls," Newspapers & Technology, April 2006), I made an error in the diagram for the Goss Community water control system. I drew the diagram as if it had a variable resistor in the circuit. A variable resistor actually controls the voltage and current by varying the resistance of the circuit, which limits the power available in a circuit. An autotransformer, on the other hand, can control larger amounts of power needed to control small to medium size motors such as the motors used in the dampening system.

Autotransformers control the voltage of the circuit by infinitely changing the taps of a transformer. Figure 1 shows the correct way of connecting an autotransformer. The primary connections to the autotransformer are usually connections labeled 1 & 2, which are the connections at the extreme ends of the outside windings. Terminal 3 is normally the wiper, which is the variable voltage tap. In any event, the water control circuit should have looked like Figure 2. Again, as the autotransformer is varied, the voltage to the dampener motor is varied, which causes the motor to speed up or slow down.

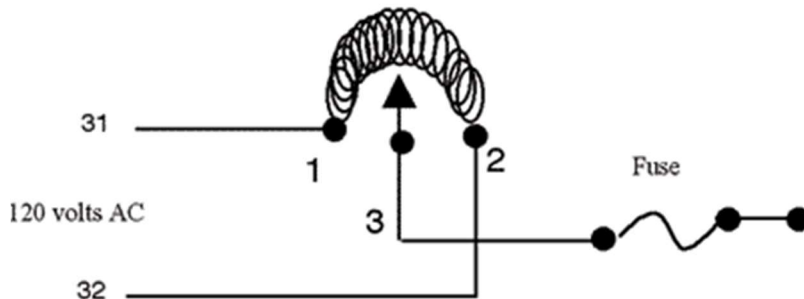


Fig. 1: Variable transformer.

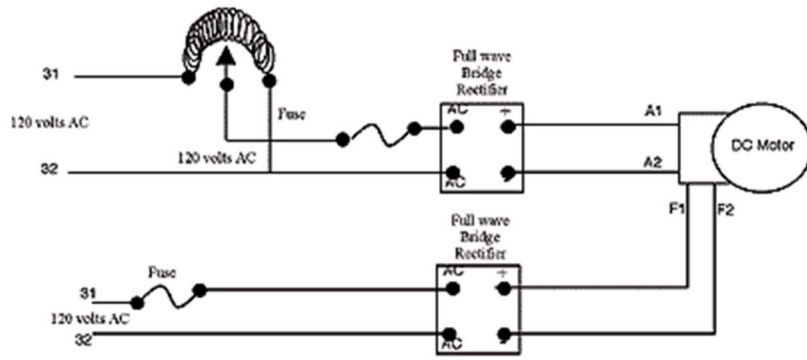


Fig. 2

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