

**Table I**  
**Control of Color Register**

| No. Print Condition   | Press Adjustment or Cause   |
|---|---|
| 1. In a pull of inspection sheets, only one sheet has misregister out of limits.  | No action: may be chance effect. See No. 2  |
| 2. In each of several consecutive pulls of inspection sheets, one or more sheets has misregister out of limits.                     | Check press: register system.<br>Check paper: See Nos. 4 to 12.   |
| 3. Register OK on several pulls of inspection sheets, but shows trend or drift toward limits for misregister in one or more colors. | Check press: gripper edge and side-guide register settings.   |
| 4. Consistent sidewise misregister along trailing edge; gripper edge OK. May occasionally show wrinkles.                            | Check paper: may have tight or wavy edges.<br>Check press: excessive impression/blanket squeeze may stretch paper beyond elastic limit.   |
| 5. Misregister varies sheet-to-sheet, mostly in the around-the-cylinder direction and worse along the trailing edge of the sheet.   | Check paper: usually due to mechanical stretch in soft, lightweight papers. Also may be due to multiple-sheeted paper or loose blanket.<br>Check ink and blankets: may have excess tackiness.   |
| 6. Random misregister, where area of misregister is different on different sheets.  | Check paper: sometimes occurs in printing heavily embossed papers.<br>Check press: reduce impression pressure.  |
| 7. Some colors consistently longer or shorter from gripper edge to trailing edge.   | Check press: blanket and packing may have compressed during pressrun, causing change in print length.   |
| 8. Consistent misregister at gripper edge or side-guide edge.   | Check press: register system.   |
| 9. Random misregister at gripper edge or side-guide edge.   | Check paper: edge trim may be bowed convex or concave, paper may have wavy or tight edges.<br>Check press: press speed may be too fast for register system to function properly; check register system.   |
| 10. Misregister lengthwise along gripper edge.  | Check paper: may be grain-short, moisture content too low, or pressroom humidity too high.<br>Check press: side-guide and sheet-forwarding mechanisms.  |
| 11. Doubling in one of the colors.  | Check paper: may have tight or wavy edges.<br>Check press: sheet hold-down device, play in impression or transfer cylinders, slippage in grippers, all register devices, and blankets.  |
| 12. Register OK except for consistent misregister in one area of sheet.   | Check paper: if area is on off-guide side trailing edge, check for trim and tight or wavy edges.<br>Check plates: may have misfit that was not noticed during makeready, or large solid on an earlier-down color near the misregister area, causing paper stretch or embossing in that area.<br>Check press: blanket delamination between face and backing. |