# 1. STREAKS

Problem – Incorrect plate-to-blanket pressure

Solution - Repack plate and blanket to correct specifications **Problem** – Incorrect plate-to-blanket bearer pressure

Solution - Adjust cylinders for correct bearer pressure; contact manufacturer

for assistance

PIA/GATF resources for help:

The PIA/GATF Sheetfed Printers Library (4 textbooks) The PIA/GATF Web Printers Library (4 textbooks)

Troubleshooting Skills for Sheetfed Offset Press Operating workshop

**Problem** – Sheet register transfer abnormal

Solution - Torque blanket evenly across the width of the cylinder

Problem - Ink form rollers set too tight to plate or oscillating roller

Solution - Release roller settings, spin form rollers to check for freeness, and reset correctly

PIA/GATF resources for help:

Color Control Bars with Star Targets

The GCA/PIA/GATF Proof Comparator III

# 3. GLOSS AND CHEMICAL GHOSTING

Problem – A drying ink film affects the drying of previously printed ink film Solution - Allow at least 24 hours for first printed side to dry before backing up

**Problem** – Slow drying Inks

Solution - Add drier to ink to decrease drying time, consult with ink manufacturer

about faster drying inks PIA/GATF resources for help:

What the Printer Should Know About Ink textbook Paper and Ink Testing and Laboratory Services

Solution - Use oscillating form rollers

**Solution** - Reduce amount of water by adding alcohol or alcohol substitutes to

PIA/GATF resources for help:

Sheetfed Offset Training Simulator (SHOTS)

# **5. INK WILL NOT DRY ON SHEET**

**Problem** – Too much water run on press

Solution - Reduce amount of water by adding alcohol or alcohol substitutes

PIA/GATF Ink Drying and Setting Tester

# 6. CONDUCTIVITY VARIES

**Problem** – Contamination of fountain solution during pressrun

Solution - Monitor conductivity regularly and have ink and paper tested **Problem** – Conductivity of water supply changing

Solution - Monitor conductivity of both water and fountain solution

Chemistry for the Graphic Arts textbook

# 7. DOT GAIN

PIA/GATF resources for help:

Problem -Ink consistency poorly controlled; ink too soft

**Solution** - Ink with more body and higher tack is needed, consult with ink manufacturer about more suitable and stable inks

**Problem** – Plate exposure incorrect

**Solution** - Plate was either overexposed for negative-working plates or underexposed for positive-working plates, consult with

plate manufacturer for correct exposure PIA/GATF resources for help:

Color Control Bars with Midtone Dot Gain Scale

PIA/GATF Plate Control Target

**Problem** – Platemaking accuracy abnormal

Solution - Do register grid test of platemaking equipment

**Problem** – Moisture content of paper not in equilibrium with pressroom conditions

Solution - Condition paper to pressroom temperature and humidity prior to running through the press or

Call PIA/GATF's Technical Hotline 1-800-910-4283

PIA/GATF resources for help:

The PIA/GATF Guide to Troubleshooting for the Sheetfed Offset Press textbook

The PIA/GATF Guide to Troubleshooting for the Web Offset Press textbook



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# 4. MECHANICAL GHOSTING

Problem - Ink form rollers cannot supply enough ink coverage on form

fountain solution

Mechanical Ghosting Form

Problem – Ink with weak pigment load

Solution - Ink with more pigment strength needed, consult with manufacturer about more suitable ink PIA/GATF resources for help:

Paper and Ink Testing and Laboratory Services The Paper and Ink Experience Workshop



Problem - Second-down ink is tackier than the first-down ink

Solution - Tack of inks must be adjusted for multicolor printing, consult with ink

manufacturer about using tack-rated inks **Problem** – Inks with improperly balanced color strength

Solution - Consult with ink manufacturer about inks with balanced color strength for running on multicolor presses

PIA/GATF resources for help:

What the Printer Should Know about Ink textbook Sheetfed Offset Press Operating workshop

# 10. SCUMMING

Problem - Insufficient moisture on plate

Web Offset Press Operating workshop

Solution - Increase amount of fountain solution on plate, check dampening system rollers settings

Problem – Ink viscosity too low

Solution - Ink with more color strength and body is needed, consult with ink manufacturer

# PIA/GATF resources for help:

The PIA/GATF Guide to Troubleshooting for the Sheetfed Offset Press textbook The PIA/GATF Guide to Troubleshooting for the Web Offset Press textbook

Problem - Ink pigment not compatible with fountain solution

Solution - Have ink and fountain solution tested, then consult with ink manufacturer and fountain solution supplier

Problem - Roller wash contaminating ink **Solution** - Use a proper roller wash to clean rollers

PIA/GATF resources for help:

What the Printer Should Know about Ink textbook

Chemistry for the Graphic Arts textbook





Problem – Web tension greater at infeed unit than between printing units Solution - Decrease infeed tension of web, check for excessive blanket squeeze

**Problem** – Uneven moisture content across web Solution - Narrow the web by using bustle wheels at each printing unit

PIA/GATF resources for help:

The PIA/GATF Guide to Troubleshooting for the Web Offset Press textbook Press Testing Consulting

# 13. HICKEYS

**Problem** – Dried ink particles

Solution - Keep press and rollers clean and in good condition

Problem - Coating particles and dust from paper

Solution - Consult with paper supplier and install sheet and web cleaners PIA/GATF resources for help:

What the Printer Should Know about Paper textbook

Paper and Ink Testing and Laboratory Services

14. STATIC IN THE PRESSROOM Problem - Lack of moisture or dissipation of static electricity

**Solution A** - Maintain relative humidity between 40% and 50% Solution B - Install static eliminators on press feeder and feedtable

PIA/GATF resources for help:

Changes in Temperature and Relative Humidity Directly Affect Paper (SecondSight Article)

Problem - Ink film thickness inconsistent across sheet Solution - Use densitometer to measure and help maintain ink densities

Problem – Ink rollers stripping

**Solution** - Clean rollers with roller wash and water; change fountain solution PIA/GATF resources for help:

Print Analysis and Laboratory Services Sheetfed and Web Test Forms

# **16. IMAGE BLINDING**

Problem – Excessive gum in fountain solution causes plate image to become water receptive

**Solution** - Replace fountain solution with one properly mixed

Problem – Excessive acid or alkaline fountain solution

**Solution** - Remix fountain solution for appropriate pH PIA/GATF resources for help:

Dampening Solutions Primer and 18 Tips on How to Maximize the Performance of

Dampening Systems (SecondSight Article)

**Problem** – Fountain solution emulsifies ink

Solution - Cut back on amount of dampening and reset dampeners **Problem** – Ink is too soft

Solution - Ink with more body is needed, consult with ink manufacturer,

have ink reformulated

PIA/GATF resources for help:

What the Printer Should Know about Ink textbook Advanced Sheetfed Press Operations workshop

Advanced Web Press Operations workshop

# 18. PROOFS DO NOT MATCH PRESS SHEET

Problem - Dot gain characteristics of prepress proofs do not match dot gain characteristics of press

Solution - Use PIA/GATF press test form to "fingerprint" dot gain characteristics of press PIA/GATF resources for help:

Sheetfed and Web Test Forms **Press Testing Consulting** 

**Problem** – Uneven absorptivity of paper

Solution - Conduct K & N ink tests and consult with paper manufacturer

Problem – Inks not trapping properly

Solution - Use a different process series of inks

PIA/GATF resources for help: Paper and Ink Testing and Laboratory Services

What the Printer Should Know about Ink textbook What the Printer Should Know about Paper textbook

Problem - Lack of focus on premakeready activities

Slashing Makeready workshop



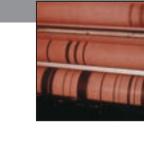
Printing Industries of America/Graphic Arts Technical Foundation 200 Deer Run Road, Sewickley, PA 15143-2600 Phone: 412/741-6860 • Fax: 412/741-2311 Email: info@gatf.org • Internet: www.gatf.org





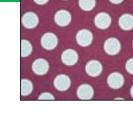








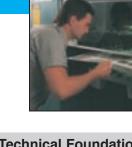










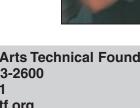


















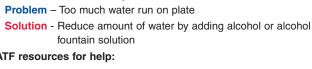












06\_You Got A Problem 5/3/06 11:15 AM Page 2

# GOT A PROBLEM?

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