

Western Maintenance Conference 2003

IMPROVING QUALITY

Facilitator: Barry Anderson

Q1

To get the ball rolling, Barry brought up a recent plate wear issue at the Seattle Times. He described the types of wear, noting that the wear became visible in solids before screens, and the fact that there was little or no traceable pattern to the occurrences. Since the problem seemed most notable on black units he asked if black ink might be more abrasive than color.

Daryl Dalisky (US Ink) described some of the differences between black and color ink formulation, most specifically that black uses a dry pigment while color uses a base cake. This requires a higher level of grinding for black than for color ink. He noted that most ink companies have similar processes, though different kinds of carbon black is available, but it can alter the cost and manufacturing of the ink. Daryl felt that the lack of predictability for the wear made ink formulation an unlikely candidate for cause.

One recommendation for testing that was to deliver ink locally to the press unit, bypassing main tank and other looped system variables.

One participant recommended comparing the plate coil numbers to the wear plates to look for patterns.

It was also recommended to track the defects by the processing order of the negatives to see if there was increases in wear from negatives made earlier or later in the run.

Q2

A question was raised about using reprocessed ink that had been involved in a spill. What problems should we look for? It was noted that an outside vendor would do the reprocessing.

Daryl Dalisky (US Ink) explained that it would depend on the potential contaminants and the process for reprocessing. One concern was that if solvents are added during reprocessing it can alter the viscosity characteristics of the recycled ink and/or make it too weak to reach density.

It was recommended that blended ink have no more than 10% recycled, and that even this should be isolated from the store of virgin ink to prevent mass contamination.

Q3

Barry Anderson asked the attendees to describe their process and controls for setting registration pins. He noted that we had been setting to Goss standard, but have since allowed the press staff to make adjustments for register and, despite concerns this has had some positive results.

Mike Montague told us that they adjust as needed and it has reduced variation in fit, but that they still have to adjust for changes in newsprint. He mentioned that they have several suppliers.

Q4

Steve Bourlon (NP&RC) asked if ink companies see problems with running yellow down first in process printing.

Daryl Dalisky noted that it is uncommon, but that the inks can be adjusted (tack and water holdout) to allow that to work.

Q5

Barry Anderson asked what the policy is for papers in regard to sending pasters to the field.

Mike Montague told us that Santa Barbara sort out pasters. One other attendee said they do the same. The Tacoma News Tribune “gold labels” the paster and they pull them later.

Q6

Barry asked how the papers decide when to change blankets.

One paper only changes blankets when there is noticeable damage. TNT changes based on run hours (approximately 600).

There was discussion about the dynamics that may be dictating the method for deciding. It was noted that smaller papers likely have to be more selective about replacing blankets, while larger papers may use impressions or hours as a criteria. It was also mentioned that larger papers might have more influence on manufacturers, as far as setting standards and driving quality improvements.

Q7

Jeff Johnson (Goss) asked about hardening of the blankets, which started some discussion about cleaning processes and measuring hardness.

It was noted that the industry has moved gradually to gentler solvents, which everyone agreed has helped extend blanket life. One attendee advised against trying to do durometer measurements on press, questioning the accuracy.

Q8

Barry asked how the papers are cleaning blankets now.

One attendee said that they are hand washing, using regenerated oil based solvents that are water activated.

Mike Montague said that they are cleaning blankets daily.

In response to a question about how many papers use automated blanket washers, Goss put the percentage at about 5% ABW and 95% hand washing.

It was recommended not to use detergent cleaners as they can leave a residue and have a high pH that can lead to stripping.

Q9

Barry asked if the papers see a high incidence of injuries related to hand washing blankets.

Two papers said that they don't see any injuries related to blanket washing.

Jeff Johnson noted that while automated blanket washers may reduce exposure to injury, it also reduces a pressman's contact with the equipment and can prevent them from seeing problems they would otherwise identify.

Bob Rooney (Nensco) noted that blankets have changed making them easier to clean and that one of the reasons for cleaning blankets (lint) can be reduced by better control of ink/water balance (over saturation can cause linting).

Q10

Barry asked if the papers are experiencing any problems with spray bars.

Bob Rooney mentioned that Phoenix had been having trouble with theirs. Another paper said that they were getting ghosting when they start up after lunch. Mike Montague recommended checking on the chemistry. Bob Rooney recommended testing the compatibility of the ink and fountain solution.

Jeff Johnson noted that when choosing between machine cut and laser cut nozzles, the laser cut is better.

Mike Montague told us that they dropped down the orifice to get a better fan of water, from .026 to .016, with good results.

Q11

Barry asked if any paper was running strictly water pressure on spray bars (as compared to water with air pressure).

One person said that everything they do is water only.

Mike Montague said that they added air to get better fan out.

Quality Roundtable Discussion

One newspaper is using laser cut nozzles for their spray bars. They cost about \$60 from Technotrans Press.

Most newspaper send their pasters to the field. The variation is to not send a front page paster.

Seattle Times: We've experienced plate wear. Can abrasive ink cause problems? Virgin ink is giving us plate wear issues.

US Ink: Black ink is made with dry pigment and it's made with a different process than the colors. It goes through two quality checks. One for grind and one for residue. Our spec for residue is less than .002 parts per 100 grams.

Seattle Times: Is it more abrasive?

US Ink: We use the least abrasive compounds we can when making the black ink. You can always pull an ink sample right at the press and have us retest it.

News Tribune: Is your process for making black ink similar to other vendors?

US Ink: Yes. The pigment is ground in a shot grinder. The ball bearings are 3mm and made of chrome. They produce very little metal residue. The ink is then put through a magnetic separator and filter (20 mm filter).

Goss: Are your colored inks made with the same process?

US Ink: No. They are not ground, just pumped and filtered.

News Tribune: Is Press Doctor good?

US Ink: Yes, it's a great starting point for troubleshooting. We can provide copies, or you can get it off the Internet

Goss: Can you guys (Seattle Times) set up a unit with only canisters of black being pumped to isolate if the problem is an inside problem?

Seattle Times: Good idea to check out.

Statesman Journal: Do you (Seattle Times) track coil numbers on plates? We run Western and have had quality issues.

Nensco: Does the image in the solids go first?

Seattle Times: Yes.

Goss: Is it specific to one spot on a printing couple?

Seattle Times: No there is nothing specific.

Boulder Daily Camera: We will have to use some reprocessed ink from a large ink spill. What should we look for in runnability issues? On on-site vendor will filter and pump the contaminated ink.

US Ink: If only paper and cardboard products have been introduced into the ink, it should be fine. If solvents were used this could create problems.

Boulder Daily Camera: We are going to use it only on one unit.

US Ink: That will be a great way to know if there are problems.

Boulder Daily Camera: What will I see if there are problems?

US Ink: Pigment might be weak. Ink/water balance will be hard to achieve and maintain. Will it stay in the fountain? Do whatever you can to keep it out of your virgin tank.

Seattle Times: For the first nine years here, we've always set pins to Goss Specs. Now the press operators are doing it based on what they observe over multiple runs. Are other papers doing this?

Statesman Journal: We get a lot of fan out on Norpac paper, but we lay down our yellow first and our press operators do it on their own. Inland seems to give us a lot of stretch.

US Ink: Y C M K is the standard lay down for most Metros. C M Y K is what is done on towers.

NPRC: Does putting the yellow down create a problem with trap? If so, can the ink companies make a change to their formula to take this into account?

US Ink: Possibly small changes to the formula could be done.

US Ink: Would using an opaque yellow help this?

US Ink: I don't think so, but it's a possibility.

Seattle Times: Who sends pasters to the field and who wastes them?

Statesman Journal: We pull about 12 papers, pick the good ones out and put them back in the stream.

Boulder Daily Camera: We do about the same thing.

News Tribune: We dump five around the gold label. Also, just as an FYI, a company called Brock Solutions is testing an RTP master control drive system for RTP controls. Info should be available at Nexpo.

Seattle Times: How do the different papers determine when to change a blanket?

Boulder Daily Camera: Just after a really big noticeable smash.

News Tribune: We use an hour meter. Our mechanics replace blankets after 600 hours of run time.

Nensco: Many times the cost factor is the biggest criteria for determining when to change them. Quality-minded papers (usually the big ones) look at the number of impressions and/or how many hours the blanket has run. A lot depends on how well it's maintained. A blanket that starts at .083 will end up at between .082 and .081 in a short amount of time. A blanket that is .080 to .078 is okay for black only, but not recommended. All color leads should have the blankets replaced when they drop to .079. The bottom line is the length of life of a blanket (if not smashed) is determined by management and how much money they want to spend.

Seattle Times: We change after one year and set impressions if they continue to cobra mic okay. We change all blankets and put new ones on before setting impressions. We keep the good old ones to be used if a smash occurs during live production.

Goss: If a blanket is only three months old and is at .081, can it get hard and not compress?

Nensco: Chemicals will do this mostly. Harsh chemicals will prevent blankets from remaining spongy. Unfortunately, there is no way to check the durometer of a blanket once it's on the press.

Goss: Two blankets that have hardened will cause web breaks when they come together in the middle.

Seattle Times: What are people using to clean their blankets?

Nensco: Most everyone hand washes them each shift.

Seattle Times: Are there any industry standards for automatic blanket wash systems?

Nensco: Warm water is the best thing for cutting through paper dust and lint. Detergents work well but leave residue. Regenerated oil products work well.

Seattle Times: Does anyone have a lot of RSI injuries from wiping blankets?

Boulder Daily Camera: No nothing. I've never heard of anyone getting hurt from washing blankets.

Statesman Journal: I've never heard of this either.

News Tribune: Me either. We haven't seen any injuries.

Goss: Automatic blanket washers take pressman off the press. This is where they often times find problems. You lose this with automatic systems.

Boulder Daily Camera: I agree completely.

Nensco: The blankets are much smoother now so they are easier to wash.

Seattle Times: Our biggest problem is lint. Is there anything that removes lint from the sheet?

US Ink: Spokane has a vacuum system. Out of balance ink and water is what creates lint also. Once again hot water is the best thing for removing lint.

Seattle Times: Is anyone having water problems they attribute to spray bars?

Nensco: The Rocky Mountain News runs variable web widths. They change weekly and have problems on the ends of the web.

Goss: If you elongate the slot, it can help reduce overlapping spray. Also, whether the nozzles are machine or laser cut can dictate how accurate the spray pattern is.

Statesman Journal: We dropped to a smaller nozzle orifice and increased the pulses and find we have better control. Techno Trans has the smaller nozzles and cost about \$60 each.

Seattle Times (Craig): Do we still have the problem with plates not cleaning up after lunch?

Seattle Times (Jeanne): Not recently. It comes and goes. We've never discovered the cause.

Nensco: The proper marriage between the chemistry and ink will eliminate this.

Seattle Times: Do other papers still use air and water in the spray bars, or just water?

Statesman Journal: Water and air with the Rycoch bars.

Seattle Times: Is anyone having problems with the side lays freezing up?

(No comment from anyone.)

Seattle Times: Does anyone increase web tension to control registration?

Statesman Journal: Not for registration, just to keep the web from wandering.