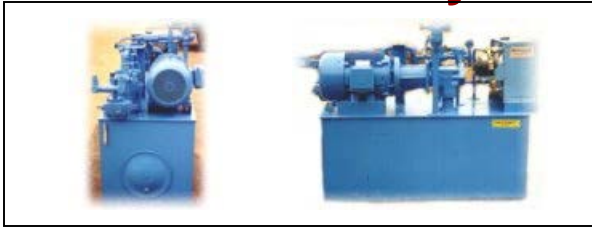


## Mid-South Engineering Company

Issue No 8 Working Together

Fourth Quarter, 2003

### Hydraulic Cleanliness



The first defense against fluid contaminants is preventing their entry into your hydraulic system. After that, removing contaminants before the system is started up, followed by operational cleanliness will keep systems in peak condition. The efforts you spend in planning and maintaining your systems is worth the investment of both time and money in the long run.

Some basic steps you can take with a hydraulic system to insure it's long life and reduced maintenance are:

- Fit the reservoir with baffles and return-line diffusers to prevent churning that whips air into the fluid.
- Equip the reservoir with an air filtered breather rating of at least 99% efficiency at 2µm. You might consider a desiccant filter also if moisture is a problem.
- Make sure all fittings are properly tightened to prevent both leaks and the entrance of dust into your system.
- Flush the system thoroughly before service.
- Pre-filter fluids before they go into the reservoir.
- Inspect filters to insure they're working properly.
- Use boots and bellows to protect cylinder rods and seals.
- Replace filter elements regularly.
- Replace any worn seal and hoses promptly for the same reasons leaks require repair.
- Practice good housekeeping to prevent contamination when filling and parts replacement.
- Analyze fluid regularly to detect problems of overheating, leaking, additive breakdown, etc.

There is more to a good hydraulic system than many may first think. Baffles and proper reservoir configuration make a huge impact. You need large particles to fall out of the fluid but some turbulence is needed to get contaminants to your filtration systems. Flooded suction and the proper spacing of valves and piping fixtures are also important. Many times your specifications can be exacting, but if those requirements are not enforced the results are poor.

Striking a balance of good initial design and regular preventive maintenance are the main keys to having a good hydraulic operation. While the items listed in this article are a starting point in your hydraulic systems, more areas should be closely examined, and we will try to touch on some of these in future newsletters.

*Portions of article adapted from Al Zingaro's article, Hydraulics & Pneumatics*



**Poinsettia** - was brought to the US in 1825 by Joel Poinsett, who was our first ambassador to Mexico. (Mr. Poinsett later founded the institution which we know today as the Smithsonian Institution). The Poinsettia is a lovely plant you place in your home during the holidays, and was once used as a fever medicine!



"The Barn" built in the 1930's to house Welsh ponies, serves as Mid-South's offices.

## How to Make the Most of Meetings

Being in an Engineering firm, but also having come from a plant background, I find it amazing how true some of the Dilbert © cartoons are to real life. A recent strip showed a vast array of “useless tagalongs” going into a meeting with a client to discuss their newest “gismo”. When the client asks, “what does your product do?”. The response from the main representative is that, “**they didn’t bring the person who knows**”. Similar in tone is one of Dave Barry’s famous one liners, “If you had to identify, in one word, the reason why the human race has not achieved, and never will achieve, its full potential, that word would be **Meetings**”. However comical we depict meetings, the reality is that they are necessary, but making the most of them is important to your success.

Meetings take up a lot of our time. Meetings on production, safety, management, etc., consume valuable resources of people and the one thing we can never get back,...time! Time is the rarest of commodities, and truly the most costly. Having good experienced people who can contribute saves you the “costly” time and makes a meeting something of value.

There are some items we should consider whenever meetings are to take place. Foremost among those is, “is a meeting necessary?” Next is, “Who needs to attend?” And last, is how and where to conduct the meeting effectively. Find ways to screen your meetings to make them productive and not just a routine event with no purpose. Knowing the purpose and having an agenda allows for good decisions on who should attend and on how to prepare properly for the best productivity. Sticking to limits and boundaries is critical.

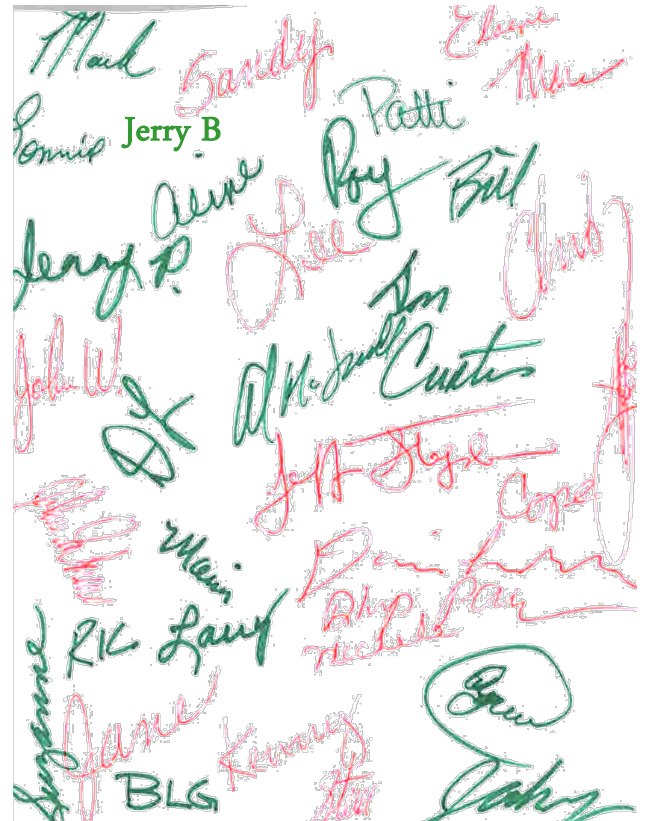
When meetings are determined to be of value, then continue the best use of your time by being: punctual, courteous (only one conversation going at a time), and attentive.

Last of all, have meeting notes published quickly to all attendees as a record of the key thoughts and decisions.

# Merry Christmas and Happy New Year



## From Us All!



## Mid-South Engineering Company

1658 Malvern Ave (71901) P.O. Box 1399

Hot Springs, Arkansas 71902

Telephone: 501-321-BARN (2276)

Contact: **Mark Culpepper**

[mculpepper@mseco.com](mailto:mculpepper@mseco.com)

Web Site: [www.mseco.com](http://www.mseco.com)