

ROCKY MOUNTAIN MASTER MECHANIC ASSOCIATION

**Sheridan Holiday Inn
Sheridan, Wyoming
May 6, 7, 2010**

**Next meeting will be held December 9, 10, 2010
Holiday Inn, Rapid City, South Dakota**

Greeting of members and reading of anti-trust statement

Introduction of officers;

**Chairman – Scott Anderson
Vice Chairman, Mobile – Kelly Hardy
Vice Chairman, Plant – Mark Payne
Sec. / Treas. – Miles Dockter**

Housekeeping items and general announcements

Break and lunch providers:

**Thursday; Breaks – Hose Power
Lunch – Komatsu
Friday; Breaks – L&M Radiator**

Hotel presentations for May 2011 meeting

**Rapid City Holiday Inn
The Lodge – Deadwood
Sheridan Holiday Inn**

The Lodge in Deadwood South Dakota was chosen as the May 5 & 6, 2011 meeting site.

Scholarship recipients for the 2010-2011 school term;

Nathan Dale, Gillette, Wyo.	\$1000.00
Timothy Quenzer, Gillette, Wyo.	\$1000.00
Ethan Barthel, Gillette, Wyo.	\$1000.00
Michael Landenburger, Underwood, ND	\$1000.00
Joshua Martwick, Drake, ND	\$1000.00
John Heidt, Dickinson, ND	\$1000.00
Cy Gleason, Gillette, Wyo.	\$1000.00

Motion to remove past officers names from financial accounts and place names of current Chairman Scott Anderson and current Sec./Treas. Miles Dockter on financial accounts carried by a unanimous voice vote.

There were no further business items past or current. Business portion of meeting adjourned.

OPEN DISCUSSION

The group asked that more time be allowed for open discussion during next meeting.

- Q. Any issues on 16M's with the steering axle pins dropping out?
- A. Using a pin from Brake Supply that is drilled and tapped for use of a bolt and washer.
 - A. Pin with a sliding lock collet is also available from aftermarket supplier. Supplier not identified.

- Q. Can we bring in someone that can give a presentation on people handling skills?
- General consensus, good idea for next meeting presentation.
Several members will check into companies they are aware of that may be interested in giving presentation.

- Q. Anyone using Oil Analysis Inc. and are they satisfied with results of oil filter analysis?
- A. Yes, currently using them, very pleased with results.
 - A. More reliable than OEM labs.
 - A. One location starts analysis at 10,000 engine hours and every PM thereafter.
 - A. Have found that filter will show trend at least a month ahead of oil analysis results.
 - A. Very specific analysis of particles and their origin.
 - A. Prompt results, rush jobs often back the next day.

- Q. Any 1850 LeTourneau front tire issues with chain use? Currently getting about 2000 hours from Bridgestone tires.
- A. No answer

Comment: MSHA giving out citations for not knowing how to test emergency steering systems, also for slight residue on engines (failure to maintain). They have recently required more driveline, engine pulley guarding on 789's, and are checking if park brakes are set on pickups. Checking to see if equipment will start in gear is next on their list of items.

- Q. What are exchange hours for 4000 series MTU engines set at?
- A. Approximately 25,000 to 30,000 depending on fuel burn.

- Q. 993K, can't get pins out when changing bucket, any suggestions?
- A. No answer

- Q. Anyone seen D-11 bevel gears spalling at approximately 6000 hours?
- A. Have heard it is a gear tooth finish issue.
 - A. May be a vendor set-up issue
 - A. Will see beginning of failure in screens, chunks are too big for analysis to detect.

Q. Has anyone added weight to the rear of a D-11 to balance the machine to reduce undercarriage wear?

A. Yes, we have added 10,000lbs.

A. Has helped to prevent scalloping.

A. Have also added shims under bogie pads.

A. In addition to undercarriage wear several sites experiencing poor bogie pin life, 5000 hours.

Q. Has anyone tried high abrasion undercarriage?

A. Yes, first set has gone 11,000 hours.

REPUBLIC DIESEL

Steve Gettelfinger and Steve Edmondson

Louisville, Ky. 1-800-292-5565

www.republicdiesel.com

The company will be 100 years old in 2011 and specializes in Spray Welding and Machining.

Spray Welding:

- Is currently accepted by OEM manufacturers as a viable repair option
- Cost effective, 50-75% of new
- They achieve 2 times OEM spec for adhesion of placed material
- Process developed in early 1920's
- Industry standards developed and set in 1970's
- Repair of engine blocks, crankshafts, cylinder heads and numerous other applications
- Very successful in repair of cylinder block and head erosion
- Have contamination control processes in place
- The buildup averages .035 in thickness
- Robotic arm is used during application to maintain continuity of weld

After welding process is complete they have a full service machine shop to complete repair/rebuild of component.

Offer a one year warranty on most parts.

Have exchange cylinder blocks available.

Will work with customers in Western U.S. on freight costs.

When asked about time frame they stated 7 to 10 days upon arrival to turn a 3500 series Caterpillar engine block dependent on condition.

FASTFILL SYSTEMS

Gene Howland, Springville, Utah 801-491-3600 ext. 107

www.fastfillsystems.com

Fuel and lube delivery products.

Fuel receiver:

- Has a check valve which prevents spray if button sticks
- Can be changed without draining tank
- An adapter for draining tank is available
- Receiver installation tool provided
- Compatible with Wiggins fuel systems

Five different styles of nozzle available:

- Four of the nozzles have to be sent in for repair and calibration
- Their Titan model is field repairable

System is “pressure less fill”:

- When float in tube inside tank reaches top of tube delivery is stopped
- Fuel level of tank can also be set with float
- Cannot over ride shut off which prevents spillage out of tank vent

Care and Maintenance:

- Use caps and plugs on nozzles and receivers
- If necessary use rag to clean nozzle and receiver before pumping product
- Check vents for plugging
- Check vent hoses for kinks
- Inspect wiper seal on nozzle for damage
- Filtration is available for tank vents

MICHELIN MEMS

Corey Bloom, Craig Stevens

www.michelin.com

The goal of MEMS (Michelin Earthmover Monitoring System) is to keep tires within their design limit. “You must know what is going on inside the tire, if you don’t know the tires’ temperature you don’t know what is really going on with the tire”.

A sensor which detects heat and tire pressure is attached to the inside of the tire. It transmits a signal every minute if everything is normal or every 10 seconds if a problem is detected. The signal can be received by many of the various versions of Mine Management software being used. A receiver can also be installed in the equipment cab which alerts the operator to changing tire conditions. Information received from sensor can be printed out or stored on a spreadsheet. The battery in the sensor will last approximately two years. There have been a low number of sensor failures due to tire life/fluid infiltration into the sensor. New design of sensor hopes to completely eliminate this failure.

This system can also be used for routine tire pressure checks without having to take machine out of production.

System is currently in use at Alpha Coal West, Gillette, Troy Myers.

TYRE SENSE

Presented by Rimex Supply, Dave Laird, 604-290-2465; Larry Peck, 602-228-8360
www.tyresense.com www.rimex.com

Tyre sense is a tire pressure/condition monitoring system designed by and for tire service personnel. The system is constantly evolving to make it more user friendly and accurate.

- System designed so low pressure alert correlates with temperature rise
- Data can easily be transferred to an Excel spreadsheet for any time span chosen
- Can be customized to monitor up to 48 wheel positions per machine
- Can configure alerts by individual tire/wheel positions requirements
- Sensor in tire transmits information to black box mounted on machine
- Information in black box can be downloaded by direct connection or wireless
- Wireless uses Bluetooth technology to send to either handheld PC or a Server
- Several types of sensors available, mounted inside or outside of tire
- Internal tire sensor more accurate, within 2 psi + or-
- System also has the ability to check sensor health

HARVARD FILTERS

www.harvardcorp.com

Filter Types:

- Surface filters
 - Work by direct interception of particles larger than pore size of filter media
 - Holding capacity limited by number of pores in media
 - Resistance to flow is small

- Depth type filters
 - Works by both direct interception and absorption
 - Use several types of media to achieve filtration
 - Fluid takes longer path before exiting
 - Have an initially higher resistance to flow than surface filters

Filter Systems:

- Full-flow
 - Designed to filter fast flowing oil
 - Protect from larger size particles, 20 to 40 micron
 - Unsuitable for smaller particles without becoming large and expensive
- Partial-flow filters
 - Sometimes referred to as kidney loop filters
 - Designed to filter a small stream of oil
 - Typically will filter particles from 1-10 microns
 - Smaller quantity of flow allows filtering without affecting system function

Function of oil:

- Clean
- Cool
- Seal
- Lubricate

New oil facts:

- New oil is not clean oil
- Not filtered at refinery
- Not filtered during packaging
- Unsure of cleanliness of bulk carrier
- New oil should be filtered before use

PARKER/DENISON PUMPS

Jeff Douglass 303-621-5082 303-805-9032

www.parker.com

Brake Supply

www.brake.com

Gold Cup Pumps:

- World wide variety of applications
- Shock resistant
- Design flexibility

- Wide range of sizes
- Up to 8000psi continuous operating pressure
- Closed or open loop design
- Common controls, manual or electronic

P1 Pumps:

- Piston style
- Variable volume
- Mainly mobile applications
- Quiet and efficient
- Continuous operation to 4060 psi
- -40 to 203 degrees F operating range
- P2 and P3 special application pumps available

Quad State Trackmasters

Don Langle, 307-689-9810, Gillette, WY

quadstatetrack@g-mail.com

Undercarriage specialists, one stop shop for undercarriage repair/rebuild

- Recondition idlers and rollers
- Swap pads
- Pin and bushing turns
- Track frame rebuilds
- Have exchange rollers and idlers
- Use OEM parts, although customer may have to make arrangements for some parts
- Use tungsten carbide hard surfacing in certain areas to increase component life
- Regrousering of track pads
- Field services not currently available
- Services used by several mine sites in attendance, satisfied with results

