



Partner Pages

Lubrication Reliability Symposium - Duluth, MN

PetroChoice once again teamed up with Mobil Industrial Lubricants and fifteen other vendors and presenters to hold their biennial Midwest Lubrication Reliability Symposium in Duluth, MN in October. The event kicked off Monday evening, October 21st and ran through the late afternoon of Wednesday, October 23rd.

The event was held at the Holiday Inn in Duluth, MN again, and it marked the second time that the event was offered as a two day / two track training opportunity. “The ability to offer these different track trainings to our customers allows us the opportunity to answer their questions in a classroom setting where they can all learn from each other,” says Steve King, PetroChoice Midwest President. Track one educated participants on the pit/off highway topics for our core customers while track two focused on plant operations. Attendance at the event grew this year to just over 100 (up from 80 in 2011), and we added several vendors who set up tables in the lobby to showcase their products and services.

The Symposium allows us to deliver value to attendees beyond our daily deliveries and services at their locations through education and showcasing new technology that can truly lower their equipment’s total cost of ownership (TCO). In order to substantiate and contextualize the TCO reduction opportunities, our presenters must demonstrate sound engineering knowledge throughout their presentations. Following the presentations, each presenter then establishes a booth in a separate area where the attendees can visit them to learn more about the specific products they offer and how they can be used to help reach cost reduction goals.



Pictured Top: Off-Highway Classroom



Pictured Bottom: Plant Operations Classroom

The companies that joined PetroChoice and Mobil Industrial Lubricants included:

- AES Seals
- CheckFluid
- Cortec
- Cummins
- Donaldson
- Eaton
- Filter Technology America
- Fluid Defense
- Fluid Life
- Graco
- L&S Electric
- Porous Media
- Rexnord
- Safety-Kleen
- Sellars

The symposium opened Monday evening to early arriving attendees with an informal networking cocktail reception, giving us, the vendors, and other attendees the chance to mingle and network.

On Tuesday morning the training sessions began with a Safety Savings and Sustainability discussion, followed by speakers who presented and discussed a variety of important topics. These topics covered a broad range of issues and technologies, including: Synthetic Technology, Grease, Couplings, Electric Motors, Oil Analysis, Sealing Technologies, Hydraulic Hoses, Fuel Efficiency, Tier IV Engines, Protecting Your Equipment, Automatic Lubrication Systems and more.

Later Tuesday evening we held our very

popular “Dine Around” event, which allows participants to relax and build on the day’s training in a more socialized environment. The evening featured a talented Jazz Trio along with several rounds of buffet foods, games, and drinks and provided a great team building and customer relationship building opportunity. This time is often used to dive a little further into some of the topics from earlier in the day on a one-on-one basis while enjoying a meal and some games.

Wednesday’s sessions continued with a full day of lessons for the Off Road and Plant Operations tracks. At the end of symposium, items were raffled off to attendees that included fishing poles, tool kits, sporting goods gift cards and a Carhart jacket. Each attendee also received a certificate of attendance which they may use to satisfy ongoing training requirements for various certifications they may hold.

The Lubrication Reliability Symposium is a true training event for our customers and potential customers and is offered by PetroChoice at no charge.

Steve King closed the meeting stating “We are looking forward to the next Lubrication Reliability Symposium to be held once again at the Holiday Inn in Duluth in 2015. We will feature new presenters and topics that will continue to help the attendees learn new ways to lower their Total Cost of Ownership.”

**-Dan Lenz,
Sales and Marketing Coordinator
PetroChoice Midwest**



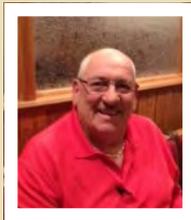
Pictured: AES Seal with Customer

Employee Spotlight	
Mid Atlantic	2
Midwest	3
Tech Talk	3
From the Desk of Shane O’Kelly	4
Upcoming Events	4

Employee Spotlight

DENNIS KOLUMBER

Dennis Kolumber has retired from PetroChoice after 12 years of outstanding service. Dennis joined Craft Oil Corp., now PetroChoice, in September of 2001 to fill the role of Automotive Territory Manager in the Lehigh Valley area. Having spent most of his career in the automotive industry, Dennis's background made him an ideal fit for the position.



Before coming to Craft Dennis worked for Young VW/Mazda/Dodge, Keystone Automotive and Car Quest. This experience helped Dennis understand the needs of the automotive customers- not just for lubrication products but for service equipment and ancillary products. Dennis was Territory Manager of the Year on several occasions and was always a top producer. Dennis was very involved with the Greater Lehigh Valley Dealers Association, regularly attending meetings and events.

Dennis is certain to keep himself busy in his retirement. Besides looking to do some part time work, Dennis will be spending more time with his wife of 14 years, Linda, his son and daughter along with their seven Grandchildren and three Great Grandchildren. When not busy with all of that you are certain to find Dennis on a golf course somewhere.

The PetroChoice family will miss Dennis greatly and we wish him a happy and healthy retirement. ♦

**-Ken Dahlinger CLS, Sales Manager
PetroChoice Mid Atlantic**

Winter Weather Safety

This winter has brought a lot of cold and snowy weather throughout our distribution regions. We all take to the roads for work and personal reasons, and PetroChoice would like to take a moment to share some winter driving tips. These may seem like common sense, but keep in mind, Safety is our priority.

- Slow down. Everything takes longer on snow-covered roads. Accelerating, stopping, turning. Give yourself time.
- Watch out for black ice- this is more likely to occur in mornings and evenings in places where the ground remains cold (bridges, shaded areas)
- The normal dry pavement following distance of three to four seconds should be increased to eight to ten seconds in snow, ice and rain. (longer distance needed if you have to stop)
- Don't use cruise control when driving on any slippery/wet surface.
- Keep the gas tank half full (or more)
- Keep warm clothes, shovel, ice scraper, bottled water and food (e.g., granola bars) in your car
- If you become snow-bound, stay with your vehicle. It provides temporary shelter and makes it easier for help to locate you. Don't try to walk in a severe storm.
 - At night, keep the dome light on if possible. It only uses a small amount of electricity and will make it easier for others to find you.
 - Make sure the exhaust pipe isn't clogged with snow, ice or mud. A blocked exhaust could cause deadly carbon monoxide gas to leak into the passenger compartment with the engine running.
 - Use whatever is available to insulate your body from the cold. This could include floor mats, newspapers or paper maps.
 - If possible run the engine and heater just long enough to remove the chill and to conserve gasoline.

Be safe and stay warm! ♦

-The PetroChoice Team

Thin Is In:

Big Changes in Engine Oil Lubrication for Both Gasoline and Diesel Engines

I'm not talking about working off those extra few pounds put on over the holiday's, I'm talking about the continued move to lower viscosity lubricants for both gasoline and diesel engine oil lubrication.

Passenger Car Oil Update- GF-6 is the latest passenger car engine oil category developed by the Auto Oil Advisory Panel (formerly ILSAC) and is scheduled for first licensing in mid-year 2016. At that time it will be giving an "S" designation by the API to replace the current API SN specification. There were four main areas that needed to be addressed in formulating these new oils including 1.) Increased fuel economy. 2.) Enhanced oil robustness. 3.) Protection from low speed engine pre-ignition (LSPI), and 4.) Wear protection for frequently started engines. Like GF-1 in 1990, GF-2 in 1996, GF-3 in 2001, GF-4 in 2004 and the current GF-5 from 2010, GF-6 will address both the latest changes in engine design and hardware along with EPA requirements for fuel economy and emissions. Since GF-1 each of these formulation changes has resulted in the development of better lubricants and better engine protection for both the new and older engines. It would seem logical that we can expect the same of GF-6 right?

Not so fast! It seems that the changes taking

place for GF-6 may not be suitable to protect older engines. In fact for the first time the new engine oil category GF-6 will need to be split into two subcategories. The first subcategory will be designated GF-6A and will be considered "backwards compatible" with older engines. This subcategory will include viscosities SAE 0W20, 0W30, 5W20, 5W30 and 10W30. The second subcategory will be designated GF-6B. This subcategory will include viscosities 0W16 and 5W16. GF-6B will not necessarily be backward compatible with older engines. Thinking XW16 this is pretty thin? Wait, formulations are already in the works for XW12 and XW8 oil for the future. Also in the works are new formulations for the General Motors proprietary specifications Dexos 1 (gasoline engine) and Dexos 2 (diesel engine). These new formulations are scheduled to be introduced in 2015 with no word on backward compatibility yet.

Diesel Engine Oil Update- PC-11 is the latest proposed category for diesel engine oils. The new formulations are currently scheduled to be released for first licensing in 2016, though some believe this may be delayed. The driving forces behind PC-11 are changes in diesel engine technology being developed to meet future

North American emission standards for carbon dioxide (CO2) and other green house gas (GHG) emission reductions along with consideration for biodiesel fuels and of course improved fuel economy. Like gasoline engine oils, we are seeing a move to lower viscosity oils. Several manufacturers have already moved away from the time tested 15W40 viscosity grade to 10W30 and 5W's are right behind. To protect diesel engines with the new lower viscosity oils new engine tests have been developed to make sure they can do the job. The focus in formulating the PC-11 oils has been with improvements in oxidation control, shear control, biodiesel compatibility, scuffing wear and oil aeration. Like GF-6, PC-11 will likely also be broken into two subcategories, one that is backward compatible and one that will be strictly for the new engine designs. It is believed that older engine designs will not have sufficient protection with the new low viscosity oils.

As I stated, "thin is in" with regard to new engine lubricants. However, with two new categories each potentially having two subcategories, it appears our oil inventory will be anything but thin. ♦

**-Ken Dahlinger CLS, Sales Manager
PetroChoice Mid Atlantic**

Tech Talk

CARE AND FEEDING OF ELECTRIC MOTOR BEARINGS

Having attended many Industrial Technical Conferences over the years, there are few statistics about electric motors that have surprised me and stuck in my mind.

1. 60% of all power consumed by the typical industrial manufacturing facility is consumed by electric motors.
2. 80-90% of all electric motor failures are a result of over greasing rather than lack of grease or lubrication starvation.

What these statistics tell us is that while electric motors are a critical asset group in regards to productivity, they are probably the least understood piece of equipment from a lubrication practice point of view. The second statistic which attributes 80% - 90% of all failures to over greasing, presents an opportunity to improve reliability and reduce downtime by understanding some basic care and maintenance practices.

The root cause of most failures is that excessive pressures and/or volumes of grease are pumped into the bearing cavity. Once into the bearing cavity, the grease is pushed past the shields and seals, and eventually ends up in the motor windings and the motor fails. Over pressurization can also force the bearing shield into the bearing cage and also cause failure.

While the fill frequency and quantity can be complex and should be calculated in consultation with the OEM, there are some best practices that can be applied.

1. Install Pressure Relief Fittings

These fittings replace the standard purge plug. Relief fitting release pressures range from 1-5 psi and are available from most industrial supply catalogs for a few dollars each. The fittings act as a venting mechanism that will relieve the bearing of excess grease and pressure in an over greased situation. Grease relief fittings reduce the effects of over greasing when using the motor stopped method or the motor running method of relubrication.

2. Motor Running Method versus Motor Stopped Method of Relubrication

Bench tests have determined that the motor running method for relubrication is more effective at minimizing the effects over greasing than the motor stopped method. Use of the relief fittings mentioned above or temporary removal of the purge plug is especially effective.

Note that after relubrication, an over greased motor will quickly exhibit an increase in temperature. The motor running method will allow grease and pressure to exit the bearing and the temperatures should drop to normal temperatures within 30 - 45 minutes.

Extreme caution must be taken when employing the motor running relubrication method. Always follow company policy regarding lock out / tag out procedures which may eliminate the possibility of employing the motor running method. Always be aware of where you are in relation to the rotating coupling. Make certain that all coupling shields are in place and secure. Secure all loose fitting clothing especially shirt sleeves.

3. Install Pressure Sensitive Supply Side Fittings

These fittings replace the standard supply side fitting (zerk) for installing grease. They are preset at a selected pressure and will not allow grease to enter the bearing if the pressure exceeds the setting. Like the pressure relief fitting, these are available for under a few dollars and install in minutes.

4. Use The Correct Grease

Most OEM's specify the use of a Polyurea based grease with an ISO VG 100 base oil. This is primarily due to the fact that Polyurea greases have excellent structural stability. Polyurea greases don't slump and fall apart due to rotational and temperature influences as quickly as other types of greases. Mobil Polyrex EM is an excellent product for this application and is widely used as the initial fill by many OEM's.

Employee Spotlight

MATT EFFHAUSER

This issue's Midwest Division employee spotlight shines on Matt Effhauser.

Born in Grand Forks, ND and raised across the border in East Grand Forks, MN, Matt attended Sacred Heart Catholic School from kindergarten through high school. At the age of 13 he began working on a farm and helped his Grandfather, who was a General Contractor, on projects in the area between planting and harvest. After high school, Matt continued his education, attending the University of North Dakota for a degree in Mechanical Engineering.



Upon graduation, Matt spent three years in the Industrial Department of a consulting engineering firm, specializing in project for ICM Ethanol. Following the bust of the ethanol boom in late 2007, he started working on capital projects for American Crystal Sugar Company, the largest Sugar Beet processor in the world. In 2010 Matt joined American Crystal Sugar Company (ACS) as a Maintenance Engineer at the East Grand Forks Factory, and learned the value of lubricants in the industrial process.

While working at ACS, Matt was introduced to Jim Ely of Lorenz Lubricants and identified his passion for finding proper lubrication programs that can help a company succeed and save money. Shortly after working with Jim, ACS entered into a labor dispute with their union workforce, leaving Matt and Jim as the only two people with knowledge of the lubrication program. During this time Lorenz was acquired by PetroChoice, and Matt was introduced to Midwest President, Steve King. Steve saw Matt's potential and asked him to join the PetroChoice team in our new Grand Forks, ND location in 2013. Matt continues to work with ACS, now supplying them with their lubrication solutions.

Matt doesn't mind getting his hands dirty from time to time either. Administering oil analysis for customers, performing system flushes and reviewing auto-lube system installs are just a few ways Matt prevents his clothes from being clean at the end of the week. He enjoys learning about the wide variety of products and services PetroChoice has to offer and meeting with customers to discuss how these offerings can help them be more successful in their industry.

Matt currently lives in a 1913 Farmhouse in rural East Grand Forks, MN with his high school sweetheart Sarah, and their three children Isabella (6), Greta (3) and Hank (2). When he is not remodeling his home, he enjoys hunting in his yard, fishing, snowmobiling and tending the garden with Sarah and the kids. He spends his summer weekends at the lake with his family. 🍷

-Lindsay Bankert, Corporate Marketing

Many plants want to consolidate greases down to the minimum number possible. Electric motor bearings are not applications where general purpose greases should be applied.

I once observed a technician pumping a lithium based grease with an ISO VG 680 base oil into an electric motor. The stress that was placed on the motor is analogous to trying to run the 100 yard dash in a swimming pool filled with molasses in January. Your progress would be severely restricted, would require extreme exertion, and you would probably not make it to the end of the pool. In short, you would fail. Electric motor bearings (like your legs) need to be able to rotate easily, free from high the resistance of too much grease or a grease with heavy base oil and thickener. Use these tips win the race to Electric Motor Reliability. 🍷

**-Ken Moster, Sales Manager, STLE CLS
PetroChoice Ohio**

From the Desk of Shane O’Kelly

Dear Valued Partners –

I’d like to share with you the benefits of “keep fill” tank management.

I was recently talking with a good customer who relayed all of the things he was doing to manage his business through the tough economic times. When it came to his lubricant purchases, he explained how he was coordinating orders on different dates to make sure that he could get his tanks filled “just in time”. He said it was taking a lot of time given his multiple products and multiple locations.

I asked him why he didn’t put his tanks on a Keep Fill basis. That is, let PetroChoice track his usage and then time his deliveries so he gets his oil when he needs it and doesn’t have the hassle of managing the process himself. He asked, “Well, won’t you just keep my tanks full and I’ll have higher inventory costs?” I explained that this wouldn’t be the case and that keeping his tanks perpetually full wouldn’t be good for either of us. As a distributor, it’s too inefficient for us to make small deliveries just to top off tanks. I added that by sharing information we could plan his orders in a way that adds value for both of us. We will make sure that he always has the product he needs and can save him the time and hassle managing his inventory. Fewer deliveries is also safer and poses less interruption to his business. And for PetroChoice, we can better optimize our delivery routes to make better use of our trucks and use less fuel during the day.

If the Keep Fill Program is something you’re interested in, call us at 800-451-5823 to get set up on the program today. ♦

Sincerely,
Shane O’Kelly
PetroChoice Chief Executive Officer

Fuel Savings or Durability? Choose Both!

Fleet managers have for years considered adopting heavy-duty 10W-30 engine oils to enhance fuel economy, a decision that’s counterbalanced by the fear of reduced oil durability.

Phillips 66 Lubricants is changing the debate with diesel engine oil that delivers both fuel economy AND outstanding wear protection—Guardol ECT® with Liquid Titanium® protection additive. It’s time to say goodbye to compromises.



FUEL SAVINGS YOU EXPECT, PROTECTION YOU NEED

To be clear, all lower-viscosity oils deliver fuel savings, primarily due to the difference in HTHS (high-temperature/high-shear) viscosity. Switching to a heavy-duty 10W-30 oil from traditional 15W-40 diesel engine oil will generally improve fuel economy by up to 1% (when both oils are of the same type and general chemistry).

Fuel savings has nothing to do with durability, however. This is where Guardol ECT’s unique chemistry comes into play, giving fleets the fuel economy advantages of lighter viscosity oil without sacrificing durability. The outstanding wear protection you get from Guardol ECT 15W-40 is the very same level of protection you can expect from Guardol ECT 10W-30.

PROVEN PROTECTION ACROSS THE MILES

Guardol’s exclusive Liquid Titanium is proven to deliver outstanding wear protection in new and older diesel engines. In on-highway trials exceeding 7.95 million miles across engine

platforms, vehicle types, conditions and service, oil with Liquid Titanium reduced relative iron concentrations in used oil—a key indicator of engine wear—by up to 31% compared to a similar CJ-4 oil without Liquid Titanium.

Liquid Titanium works by forming a strongly bonded titanium shield on the surface of critical engine parts to reduce wear and extend engine component life.

If you’re considering lower-viscosity oil to maximize fuel savings, choose the one that puts a premium on durability—Guardol ECT with Liquid Titanium protection additive.

CALCULATE HDEO FUEL SAVINGS ONLINE

We make it easy to estimate fuel savings by simply switching from 15W-40 to 10W-30 or 5W-40 oils. Visit phillips66lubricants.com. From your mobile device use URL Phillips66Lubricants.com/mobile/fuel-calculator/

Contact your PetroChoice Representative to see if you qualify for a complimentary product trial. ♦

-Gavin Rodda, Phillips66 Lubricants

Upcoming Events

January 28-30, Marcellus-Utica Midstream, Pittsburgh, PA

April 15-16, MLEP Logger Conference East, Tower, MN

April 22-23, MLEP Logger Conference West, Bemidji, MN

April 22-23, SME Duluth MN Conference, Duluth, MN

June 3-5, DUG East, Pittsburgh, PA

For more information about the events listed, contact Lindsay Bankert, lbankert@petrochoice.com



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