

Lubrication and Seals

Product Showcase

Klüber Lubrication

INTRODUCES BEARING GREASES

Klüber Lubrication, a worldwide manufacturer of specialty lubricants, has introduced Isoflex Topas NB 52 and Isoflex Topas NB 152, two rolling and plain bearing greases based on a synthetic hydrocarbon oil and a barium complex soap. The products help optimize operational reliability, cut servicing costs, conserve energy and extend maintenance intervals. The special barium-soap thickener used in the Isoflex Topas NB 52 and 152 greases offers good load-carrying capacity, as well as resistance to water and ambient media. Both products protect against corrosion, as well as oxidation and ageing.

Isoflex Topas NB 52 is suitable for temperatures ranging from -60°F to 250°F and short peak temperatures up to 300°F depending on the application. Isoflex Topas NB 152 can be used in a wide service temperature range of -40°F to 300°F. Isoflex Topas NB 52 is a versatile grease for many applications, including:

- rolling and plain bearings subject to high speeds and loads, as well as low temperatures – ideal for road, side-guide, and up-stop wheels
- tooth flanks in precision gears, such as bevel gears in milling machines and electromechanical actuators for valves

The following news items offer the latest on lubrication and seal technology in the power transmission market. From bearing greases to high-performance seals, these products will help extend the service life and manufacturing capabilities for a wide range of industrial sectors. Companies featured include Klüber Lubrication, SKF, Garlock, Schaeffler, Shell Lubricants, Trelleborg and Moven-tas. For additional information on lubrication and seal technology check out the Power Transmission Engineering Buyer's Guide at www.powertransmission.com.

- electric contacts and components to reduce insertion forces

Isoflex Topas NB 152 is compatible with many plastics and is used primarily for medium speed rolling and plain bearings, fan bearings and pump bearings. The grease is also suitable for plastic/plastic or steel/plastic friction points. "Using Isoflex Topas NB 52 and Isoflex Topas NB 152 greases leads to

more consistent torque over a wide temperature range as well as longer component life when exposed to water or aqueous media," said Stephen Mazzola, director of engineering & technical services for Klüber Lubrication North America L.P.

For more information:

Klüber Lubrication
Phone: (603) 647-4104
www.klueber.com



SKF

INTRODUCES AXIAL EXCLUDER SEAL

The new SKF axial excluder seal introduces an ideal high-performance alternative to conventional rubber seals for protecting wind turbine main shaft bearings from contaminants. Ultimately, the seal represents an advanced first line of defense against any debris or contaminants the wind may carry and can help wind farm operators significantly reduce the risks of contaminant-related bearing failures

and the high costs of associated unplanned downtime, repair, and lost productivity.

Unlike conventional rubber seals typically prone to excessive wear and subsequent failure, the SKF axial excluder seal (designated HRC1) is manufactured from a proprietary SKF polyurethane material exhibiting excellent resistance to wear, abrasion, UV radiation, and ozone.

Key design features include a robust sealing lip to help reduce bending and minimize contact area, friction, and wear; optimized flexibility and engineering geometry allowing axial displacement of ± 2 mm; and integrated grooves to keep the sealing edge properly lubricated. In addition, the seal features a stainless steel clamping band with a fast-lock mechanism to facilitate easy up-tower installation.

Garlock Products

RECEIVE UPGRADED INGRESS PROTECTION RATINGS

The Garlock family of companies announces that several products in the Klozure line of bearing isolators have received upgraded ingress protection (IP) ratings from the National Electrical Manufacturers Association's NEMA MG-1 2009 Part 5 specification. The Guardian, Micro-Tec II, SGI and EnDuro have been upgraded from IP55 and IP56 sealing ratings to IP65 and IP66 sealing ratings, confirming their suitability for use in applications where no liquid or dust ingress is permitted.

"The newly upgraded ratings for the Klozure bearing isolators are important for our customers," says James Wong, associate product manager for bearing isolators at Garlock. "The IP65 and IP66 ratings allow our customers to protect their equipment against dust



and liquid contaminants, and will help reduce unexpected downtime and equipment damage."

IP ratings signify contaminant protection levels. While IP5x products can effectively protect equipment against dust, sealing products with an IP6x rating ensure zero dust intrusion making the equipment dust tight. IP65-rated seals protect against dust and forced water intrusion, whereas IP66-rated seals protect against dust, increasingly powerful water jets and heavy seas.

Klozure bearing isolators are designed to protect machinery in the world's manufacturing industries from dust, liquid and abrasive particle contamination while helping to ensure uninterrupted production with reduced maintenance. Testing services for the IP65 and IP66 ratings were performed by a third party evaluation group.

For more information:

Garlock
Phone: (800) 448-6688
www.garlock.com

and fixation on the shaft, whether for new installations or retrofits.

Early field trials confirmed the HRC1 seal's performance levels and robustness. Seals installed on 40 separate 2.5 MW turbines operated continuously under real-world conditions and, after three months, an initial inspection revealed only normally expected run-in wear – with no dramatic changes six months later.

HRC1 axial displacement seals are available in standard solid and split versions for shaft sizes from 1m to 3m. Custom solutions can be developed.

For more information:
SKF USA Inc.
Phone: (224) 535-4007
www.skf.com



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Schaeffler

OFFERS MULTI-POINT LUBRICATOR FOR
ROLLING BEARINGS

This year, Schaeffler unveiled its unique multi-point lubricator for rolling bearings. The system can be adjusted to provide four different lubrication volumes to cater for bearings with varying lubrication requirements.

FAG Concept8 is an innovative, cost effective lubrication system for rolling bearings that ensures a constant, optimum supply of grease to the bearings without the need for manual intervention, particularly if machines are located in difficult-to-access areas or are deemed as critical to the production process.

FAG Concept8 provides up to eight separate lubrication points for dispensing precisely metered quantities of lubricant to rolling bearings. The system can dispense lubricant to rolling bearings in a wide range of industrial applications, including pumps, fans, compressors, gearboxes, electric motors, machine tools, wind turbines, as well as production lines in food and beverage processing plants.

FAG Concept8 is fitted with four pairs of lubrication points (eight in total), which are controlled by four individual dispensing pumps. Unlike other multi-point lubricators on the market, FAG Concept8 enables users to individually control each pump in order to optimize cycle times and volumes of dispensed lubricant (lubricant can also be dispensed in a 'pulsed operation'). This means the system can be adjusted to meet up to four different bearing sizes, each with varying lubrication requirements - an industry first. Rather than having to purchase multiple single point lubricators to cope with different bearing lubrication requirements, users can now buy one FAG Concept8.

FAG Concept8 is also equipped with heated outlets, which ensure reliable dispensing intervals, even at low tem-



peratures when the grease is more viscous. In addition, as the lubricant is stored in a transparent replaceable cartridge, users can easily check the lubricant level, enabling easier fill-level control. The system is easy-to-use with an integrated LCD user display that provides clear navigation menus and two keypad control buttons for set up and adjustment.

FAG Concept8 operates on Schaeffler's Arcanol range of lubricants. This range includes 17 different greases, each one developed by Schaeffler application engineers and produced by leading international lubricant manufacturers. These greases therefore provide specific lubrication properties for almost every type of industrial application.

For more information:

Schaeffler
Phone: (800) 243-7512
www.schaeffler.us

Shell Lubricants:

CHINA MARKET GETS NEW TECHNOLOGY CENTER

Shell recently opened a new technology center in Shanghai, China dedicated to research and development into lubricants and oils. The center (Shell (Shanghai) Technology Limited) will focus on lubricant product development and application for China and the wider Asia region covering countries such as India, Indonesia, South Korea, Thailand and Vietnam. Matthias Bichsel, Shell's projects and technology director, said, "The Shanghai facility will proudly bring Shell's technology leadership even closer to customers and partners in the region. Shell has long been at the forefront of lubricant science and technology. We recognize that better oils and greases can lead to energy savings and improved machine performance." The center will become a part of Shell's network of lubricants laboratories, working closely with the other two centers, in Hamburg, Germany and Houston, USA. These are part of a wider 10-center strong global network of Shell R&D centers. "The new center reflects the direction of the Shell Lubricants business today and the central role that China plays in its long-term growth strategy," said Mark Gainsborough, executive vice-president Shell Lubricants. "We are well-positioned to meet the anticipated growth in demand in the region. Locating in Shanghai will help us work more closely with our customers and shape mutually beneficial collaborations."

For more information:

Shell Lubricants
Phone: (713) 241-6161
www.shell.us

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Trelleborg

FOCUSES ON PRODUCTS AND SERVICES

In 2014, Trelleborg Sealing Solutions presented its "Trelleborg Solution," advanced delivery services and customized packaging as well as its array of innovative products including Turcon, Glyd Ring II, Zurcon Glyd Ring D and high performance rotary seals. With a focus on increasing the Total Value of Ownership (TVO) for customers and



supplying not just the highest quality of products, but also services, the "Trelleborg Solution" from Trelleborg

Sealing Solutions helps accelerate customers' business processes and delivers seal application and design for even more efficient manufacturing. When coupled with its advanced delivery services, Trelleborg Sealing Solutions can help empower fluid power component manufacturers through vendor-managed inventory and supply chain solutions, such as value-added packaging and handling services. These give customers the ability to customize packaging and labeling for a more simplified stocking and handling operation. Peter Hahn, president, Trelleborg Sealing Solutions Marketing Americas, says: "Our value proposition to our customers is a significant cost savings proposal through a radically different concept in helping our customers to not only *rethink their profitability* but actually deliver the solutions to help achieve it. As a forward-thinking company, we not only intend to bring business accelerators to the forefront for our customers but also to help them to implement and achieve increased business value."

Product highlights include: Turcon Glyd Ring II, a double-acting, rod or bore, bi-directional seal for reciprocating and static applications offering lowered friction and yielding a longer service life, Zurcon Glyd Ring D seal that is produced from a completely new Zurcon material and engineered to extend seal life in high-pressure hydraulic sealing applications. It is well suited for machines, equipment and motors filled with hydraulic cylinders and rotary seals that extend product life while improving safety and performance in extreme environments in power transmission and motion control applications.

For more information:
 Trelleborg Sealing Solutions
 Phone: (303) 465-1727
www.trelleborg.com



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Moventas

DEVELOPS GEARBOX LUBRICATION FOR WIND TURBINES

Moventas has developed a special gearbox lubrication upgrade for customers operating WinWind made WWD3 turbines, to extend their lifetime. The first one of these projects will be carried out for Innopower in Kemi, Northern Finland.

Moventas carries out a lubrication upgrade for ten turbines in the Ajos wind park in Kemi as part of a larger service project. The lubrication upgrade that prolongs turbine lifetime consists of upgrading the entire gearbox lubrication system, installing extra pumps for the main bearings and adding temperature sensors, changing the coolers and updating the lubrication management logic. With the upgrade, lubrication will also be added in situations where it has previously been insufficient.

"We have high expectations for this upgrade. Key main components should last until the end of turbine lifetime. Professional maintenance and condition management enables minimizing potential risks. High-quality components, reliable solutions and professional partners are the secret to wind power's success," comments Production Manager Raine Laaksonen from Innopower.

Installing the upgrade only takes a few days, but considerably prolongs turbine lifetime, as functioning lubrication efficiently prevents main component failures. The installations take a maximum of five days per turbine, depending on the delivery scope. The service project of all ten turbines both on and offshore along with calibration and testing will be completed in August, says Moventas' Nordic Service Sales Manager Teemu Hyytiäinen. "We have a long-standing, good co-operation with our partner network for the benefit of customers who own WinWind turbines in Finland as well as the rest of Northern Europe, where these customers' wind parks are located."

Lubrication upgrades tailor-made for different gearbox types are just one example of the upgrade services that Moventas offers for prolonging gearbox lifetime. These include e.g. bearing solution modernizations, ring wheel material and heat treatment changes, housing enforcements and accessorizing. Depending on the ser-

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lubrication

at www.powertransmission.com



vice, it can be carried out either in a Moventas workshop in Finland, Germany, U.K., Australia or the United States or up-tower in a wind park.

For more information:

Moventas Inc.

Phone: (503) 247-6107

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