

PRESS KIT HILLHEAD 2014 - STAND PA32 / PA31









NTN-SNR AT THE HILLHEAD SHOW FROM 24TH TO 26TH JUNE 2014

PRESS KIT - HILLHEAD

Press release, NTN-SNR TOLLS OUT ITS SERVICE OFFER NTN-SNR ROLLS OUT ITS PRODUCT AND SERVICE OFFER FOR QUARRYING	
AND MINING	p. 1
NTN-SNR, THE BEARINGS SPECIALIST	p. 1
I. THE BEARING BOX, SYMBOL OF NTN-SNR 'S «WITH YOU» PROMISE	р. З
II. AN INNOVATIVE LUBRICATION OFFER	p. 4
III. THE ULTAGE RANGE DELIVERING HIGH PERFORMANCE	p. 5
IV. THE RENEWED SNC HOUSINGS RANGE	р. 6
V. PORTFOLIO	р. 7



Annecy (France), 24th June 2014

NTN-SNR at the Hillhead trade show from 24th to 26th June 2014

NTN-SNR deploys its services and products for the industry in Great Britain

From 24th to 26th June 2014, NTN-SNR will unveil several new products at the Hillhead trade show, a leading event for mining and quarrying professionals in Great Britain. NTN-SNR will announce the strengthening of its UK offering, including the arrival of its Bearing Box van, constructed and equipped for training at customer sites. The Bearing Box is the spearhead of the Experts & Tools department of NTN-SNR; its purpose is to provide its end users with bearings from a large service range and resolve their bearing maintenance issues. In the same spirit, the new condition monitoring concept especially suited to environments in mines and quarries, as well as heavy industry will be presented. The Premium quality NTN-SNR product range will be displayed, featuring the ULTAGE range dedicated to high performance in harsh environments. Sealed Spherical roller bearings and the remodelled range of SNC housings will also be promoted.

• THE BEARING BOX PUTS ON ITS SHOW AT HILLHEAD BEFORE HITTING THE ROAD

The focus of NTN-SNR stand at Hillhead is the launch of "The Bearing Box" that will be visiting customers across the UK and Ireland to deploy the NTN-SNR service offer to its customers. At its stand, NTN-SNR will make a presentation every hour of the Bearing Box's features with a scale model of the vehicle that will be present at the show. Having proven itself in France, Germany, Morocco, USA, Canada and Japan, the Bearing Box has become a part of NTN-SNR's development strategy in the UK. A symbol of the «Preferred Partner» policy implemented by NTN-SNR, the Bearing Box meets the customers' demands by bringing to their site all maintenance and training offers.

• INNOVATION : A CONCEPT OF MONITORING AND SUITABLE LUBRICATION TOOLS

A simple and complete new monitoring concept

NTN-SNR will present its new monitoring concept dedicated to harsh industrial environments. Unlike many existing surveillance technologies, this innovation meets the requirements of machine operators as well as operation managers, in a simple, easy to access and low cost manner. A single multi-technology box centralises the data from different sensors and triggers alerts following any problem with parameters such as temperature, speed, etc. This high level monitoring is a genuine solution to reduce operating costs in general.

Innovating to simplify with "Polipump"

Another innovation in lubrication systems for improved maintenance, NTN-SNR will launch its new "Polipump" multi-point lubrication station, that can supply up to 35 lubrication points with a pressure of 80 bars, and very simple programming. A particularly suitable tool for installations in mines and quarries.

PRESENTING PREMIUM PRODUCT RANGES FOR INDUSTRY

The high-performance SRB ULTAGE bearing range

NTN-SNR launches the ULTAGE range of premium spherical roller bearings dedicated to high performance in industry, including EF800 especially developed for the mines and quarries market. ULTAGE bearings have features that meet the high performance application requirements: optimised internal design, superior steel quality and efficient heat treatment. ULTAGE, which now offers bearings of up



to 650 mm outer diameter. The NTN-SNR range is established as one of the largest for the industry in Europe. NTN-SNR also presents new sealed bearings, including the EE series from the ULTAGE range with elastomer seals and a design that allows them to maintain optimum sealing and constant pressure at the seal lip, even in case of a misalignment. These characteristics result in the bearings being preferred for applications with high load capacity and operating in difficult environmental conditions.

A range of remodelled bearings

NTN-SNR will also present its range of SNC pillow blocks with a renewed design, and an extended range of ductile cast iron housings for use in extreme industrial conditions, especially in terms of low temperatures and high load. The entire range, one of the largest in the market, offers high quality design and reliability for all its industrial applications ranging from giant fans to conveyor equipment in mines and the steel industry.

NTN-SNR, THE BEARINGS SPECIALIST

NTN-SNR ROULEMENTS is part of the NTN Corporation, the 3rd largest manufacturer of bearings in the world, and manages and develops all NTN's activities for Europe, South America, Africa and the Middle East. A key player in its capacity as designer, developer and manufacturer of automotive, industrial and aviation bearings, NTN-SNR ROULEMENTS also develops maintenance services and solutions in its Experts&Tools department and thus proposes a comprehensive offering. NTN-SNR ROULEMENTS employs 4113 people and has 9 production sites in Europe and Brazil and 23 sales offices worldwide.





I. THE BEARING BOX, SYMBOL OF NTN-SNR'S «WITH YOU» PROMISE

The Bearing Box, brought into service in Great Britain by NTN-SNR, is the 5th of its product line in Europe and Africa after those that operate in France, Germany and Morocco. The Bearing Box is the most emblematic expression of NTN-SNR's «With you» promise, putting all NTN-SNR's Experts&Tools services at the heart of customers' facilities. The Hillhead show will mark the beginning of the Bearing Box on Great Britain's roads. The programme: meet end users of bearings in real-world conditions and show them NTN-SNR's support capacities to extend the service life of bearings.

• NTN-SNR EXPERTS&TOOLS, AN EXPANDED RANGE OF SERVICES

NTN-SNR's Experts&Tools department implements the «Preferred Partner» notion underscored by NTN-SNR on a day-to-day basis, offering a broad range of training and maintenance services. With NTN-SNR Experts&Tools, maintenance costs can be cut and the quality of maintenance tasks improved to extend the service life of equipment. In making the development of new ranges of services and maintenance a strategic priority, NTN-SNR now offers its customers improved performance and reliability.

With a book of specifications dedicated to each customer, it proposes a targeted, customized and ideally suited offer.

• THE BEARING BOX, ALL NTN-SNR'S KNOW-HOW AT THE HEART OF CUSTOMER SITES

The Bearing Box is like the Experts&Tools department, visiting customer sites to satisfy all requirements for maintenance or expert advice swiftly and precisely. Customers only need to contact their distributor or Experts&Tools centre at www.ntn-snr.com to schedule an in situ training session, service call or appointment to present all of the proposed services. By way of example, the Bearing Box performed 130 days' of servicing in France in 2013 alone.

With the Bearing Box, NTN-SNR Experts&Tools offers its customers on site:

- hands-on and theoretical training,
- technical assistance at the heart of operations,
- a swift diagnosis of bearings
- demonstrations of a wide range of tools designed for the maintenance and installation of bearings: self-centring pullers, practical hydraulic nuts, induction heating devices, digital thermometers, etc.
- reconditioning of machine tool bearings and spindles,
- shaft alignment services.
- organizational audits of industrial maintenance



Dates of commissioning of Bearing Boxes:

France: 2010 Germany: 2011 Morocco: 2012 Great Britain: 2014



Discover the Bearing Box on NTN-SNR's stand at the Hillhead show:

- An actual size model of the Bearing Box on the stand and an hourly demonstration by the NTN-SNR expert.
- The Bearing Box in the show's car park



II. AN INNOVATIVE LUBRICATION OFFER

Lubrication is central to the efficiency and service life of bearings. This is especially true in harsh environments like mines and quarries where both robustness and ease of use are needed to maintain proper lubrication and avoid failures. At the Hillhead show NTN-SNR presents the new «Polipump», a compact multipoint unit designed for ease of use in this type of environment. The «Polipump» supplements NTN-SNR's Lub'Solutions offer, comprising a range of single-point greasers and a range of lubricants especially designed for different types of use and environments, such as high temperatures, heavy loads or strong vibrations.

• THE «POLIPUMP», AN INNOVATION TO SIMPLIFY LUBRICATION

NTN-SNR's «Polipump» offers 3 configurations: 1 to 12 lubricating points, 1 to 24 and 1 to 35 lubricating points at a pressure of 80 bar. Particularly suited to mines and quarries, it delivers efficient lubrication with a 2-litre tank for all lubricating points. A filling kit system using cartridges of lubricant tops up the tank very quickly with no risk of pollution. It is very easy to programme, directly on the panel built into the base, and offers 12 different lubricating cycles. There are 6 types of pumping parts with capacities ranging from 0.02 cc to 0.13 cc, covering all lubricating needs. The «Polipump» can work within a temperature range of -10°C to +60°C.

• LUB'SOLUTIONS, A RANGE OF GREASERS AND LUBRICANTS FIT FOR PURPOSE

NTN-SNR's Lub'Solutions offer features a range of single-point greasers, including the recently introduced Ready Booster, a great commercial success since it was launched, especially in mines and quarries, thanks to its excellent seals (IP68 protection class), its ATEX certification and its compactness, enabling it to be installed in confined spaces.

Eight lubricants for all environments

For ideal servicing in any situation, these lubrication systems can be combined with NTN-SNR lubricants. NTN-SNR offers a range of eight easy-to-understand lubricants designed for different environments:





- UNIVERSAL (general use),
- HEAVY DUTY (intensive applications),
- VIB (parts subjected to vibrations or shocks),
- HIGH TEMP (long-term lubrication at high temperature),
- FOOD AL (food and pharmaceutical applications),
- CHAIN OIL (for chains, even at high temperatures),
- ULTRA HIGH TEMP (long-term lubrication at very high temperatures),

UNIVERSAL

• HIGH SPEED+ (grease for very high speeds or low temperatures).



III. THE ULTAGE RANGE DELIVERING HIGH PERFORMANCE

At Hillhead, NTN-SNR presents ULTAGE roller bearings, its new high-performance range. Available in outer diameters of up to 650 mm, these bearings are designed for the most demanding industrial applications, especially in mines and quarries, the steel industry and the paper-making industry amongst many others. The features of ULTAGE bearings, which are direct product of NTN-SNR's research and development programmes and are manufactured in Europe, put them amongst the most reliable on the market and significantly cut maintenance costs and cost-in-use.

DESIGNED BY NTN-SNR TO DELIVER RELIABILITY AND DURABILITY

The characteristics of ULTAGE bearings meet the demands of high-performance applications: optimal internal design, in particular the absence of a centring rim or central guide ring for maximum load capacity, minimum overheating and smoother flow of lubricant; the superior quality of extremely pure steels for better fatigue strength; heat treatments for optimal wear resistance, impact resistance and greater durability.

• THE EF800 SERIES FOR APPLICATIONS WITH STRONG VIBRATIONS

The EF800 series of spherical roller bearings is designed for harsh environments as found in breakers, vibrating screens and crushers in mines in quarries. Besides the features common to the entire ULTAGE range, for the EF800 range NTN-SNR offers a machined brass cage that can withstand the strongest vibrations or accelerations. Test benches show that the resistance of the machined brass cage is 2.5 to 5 times higher than for any cage in sheet metal. Its elasticity capacities and its self-lubricating properties make this material an essential asset for applications with strong vibrations. Moreover, the reduced tolerance on bore diameters allows g6 and f6 adjustments and the tolerance on outer diameters allows adjustments in P6 type housings.



• HIGH-PERFORMANCE INGRESS PROTECTION SERVING INDUSTRY

NTN-SNR has developed the EE series of sealed spherical roller bearings in the ULTAGE range for applications that require high load capacity bearings in harsh environments. Typical applications include continuous casting equipment in the steel industry, paper-making machines in often humid or corrosive environments, conveyors in dusty environments or even building and public works machinery. They are also suitable for special applications like lift transmission systems. Sealed low noise bearings are available for certain high-end transmission systems. The 22200 EE and 22300 EE series, identified by the prefix 10X, are slightly wider than the ISO15:1998 dimensions to house the seals, while still easy to install in existing assemblies. These bearings are delivered ready to mount and pre-filled with enough high-grade grease for heavy loads: the Heavy Duty grease developed by NTN-SNR's Experts&Tools department. The red elastomer seals are optimally designed with finite element simulation software to maintain optimal impermeability and constant pressure of the lip seal in the event of misalignment.



IV. THE RENEWED SNC HOUSINGS UNITS RANGE

Since 2013 NTN-SNR has totally redesigned its range of SNC pillow blocks, and above all has extended it with plummer blocks made of ductile cast iron for use in extreme conditions in industry, especially in terms of low temperatures and of loads. The whole range, one of the most extensive on the market, offers superior design quality and reliability for all industrial applications, ranging from giant fans to mine conveyor equipment, including steel industry applications.



• BEARING UNITS MADE OF DUCTILE CAST IRON FOR EXTREME CONDITIONS

The significant innovation in the renewed range of SNC bearings offered by NTN-SNR is the introduction of bearing units made of EN-GJS-400-18 ductile cast iron. This offers resistance properties up to 1.8 times higher than those of grey cast iron. These bearing units are especially designed for applications involving violent shocks or very heavy loads, as is the case in the mines and quarries industry and others. They are also suited to very low temperatures, as low as -50°C, which are commonplace in the mines of Siberia for instance. They also have some specific features and have been optimally designed for better resistance.

• AN EXTENDED AND RENEWED RANGE FOR THE GREATEST POSSIBLE NUMBER OF APPLICATIONS

With these new units, NTN-SNR range of SNC bearing units is now one of the most comprehensive ranges on the market. The rest of the range has also been renewed. Their new black paint, more technical and more neutral, makes them easier to integrate into any type of machine. Furthermore, the SNC bearing units feature an additional lubrication hole through which the grease can be inserted directly into spherical roller bearings with grooves, thereby offering more savings in terms of maintenance and lubricant. Another strong point of the range is the diversity of bearings it can accept, ball bearings for high-speed applications and above all spherical roller bearings, more particularly those in NTN-SNR's ULTAGE range, which offer considerable advantages in terms of service life and functional capabilities. Many seal options are offered to meet the greatest possible number of applications and any conditions of speed or environmental conditions.

• A HIGH-END DESIGN FOR OPTIMAL RELIABILITY

All of the housings are designed with NTN-SNR's 3D CAD software. The shape of each body component is computed and optimized using the finite element calculation method. The product is validated by sophisticated endurance tests on test benches and by practical load tests. With regard to all the housings in grey cast iron, among other features we should mention the circular seam on the body, which makes the unit's form stable and rigid, and an X-shaped pillow block that strengthens the bearing structure and offers high thermal dissipation capacity. In addition, on all models the diameter of the two bolts that hold both parts of the housing together is bigger than usually offered on the market: this enables them to withstand higher radial loads. Regulation discs can also be mounted in bearing units to remove surplus grease. This way a stable and lower temperature can be attained more quickly, more particularly in high-speed applications.







- 7 -





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