

Agri-Smart integrated solutions launched at NAMPO

MechChem Africa visits the BI (Bearings International) stand at NAMPO in Bothaville and talks to Gerhard Pienaar, manager for the agriculture sector, about the new Agri-Smart product range.

Across the globe, the farming industry is becoming more and more important. According to the UN Food and Agriculture Organization, compared to total agricultural production in 2006, farmers will need to produce 70% more by 2050 to feed our planet's growing population. And, as always, farmers have to rely on mechanisation and modern technology in order to meet this growing demand.

It was no surprise, therefore, to see a John Deere quad track tractor, the 9570 RX, launched at NAMPO, with South African farmers being some of the first outside the USA to see these machines. Featuring the company's Generation 4 CommandCenter touchscreen display, the machines can be controlled 'as easily as using a smartphone' and feature GPS-based driverless navigation via a StarFire receiver and AutoTrac.

The Internet of Things has arrived on South African farms.

BI's new Agri-Smart product range is designed to support the advancement of this technology from an aftermarket perspective.

"We strive to offer our agricultural customers total solutions for their specific requirements and conditions and we are continuously developing new products to meet the modern needs of our farming community," says Pienaar.

"We believe that the agricultural industry is of utmost importance to food security, and therefore to the economic development of our country. We strive to offer excellence to our customers in both service and product provision," he adds.

With the agricultural sector under increasing pressure to cut costs and improve productivity, BI has both the experience and expertise, backed up by some of the best products available on the market, to assist farming customers in reducing their downtime and boosting productivity.

BI's diverse product line-up for the agricultural industry, under its Agri-Smart banner, runs the gamut from supplying bearings and chain to couplings and transmission products for arduous farming applications such as ploughing, planting, harvesting, and baling.



It carries a comprehensive stockholding of critical spares, in addition to chain and V-belt drives, that can be dispatched to customers' sites at short notice.

BI supplies bearings for agricultural equipment such as combine harvesters, planters, balers, tractors, spreaders, mixers, and hammer mills. Sprockets, chains, and accessories are available for major combine-harvester brands such as John Deere, Claas, Case, Clayson, Fahr, Laverda, Massey Fergusson, and Slattery.

Highlighting key initiatives introduced at NAMPO 2018, Pienaar first takes us to a new set of Jonnesway hand tools, developed by farmers for farmers. "When we asked farmers what tools they needed, their first response was that they could never get the right box. Because they travel so much, they need the toolbox to fit out-of-sight behind or underneath the seat of their vehicles for the times when visiting towns or remote areas of their farms. So this is the starting point of our BI/Jonnesway solution," says Pienaar.

With respect to tools, the kit is fitted with spanners and sockets from M8 to M32. "Then they said they wanted a meaty hammer, but a 4 lb hammer is too big, so we have included a 2 lb one instead. A hacksaw was seen as essential, but farmers also complained about never being able to carry replacement blades, so we have included a hacksaw that carries blades inside its handle," Pienaar tells *MechChem Africa*.

A substantial set of pliers, a vice grip; circlip pliers; a 2-inch shifting spanner, a robust knife and electricians screwdrivers are also key tools in the kit, along with "moer my" screwdrivers designed to withstand being hit by a hammer. "This is a robust well-designed set of tools designed to suit the routine maintenance tasks on farms, such as removing and repairing a PTO shaft or replacing planter hub bearings. Our goal is to help farmers to be more efficient, because the one thing we can't get more of is time. So anything we



BI's new BAA003 bearing hub, which has a better sealing arrangement than any OEM or premium-brand equivalent and the same aftermarket unit can be used on cutting discs, front depth wheels and furrow closing wheels, simply by selecting the matching adapter shaft.

can do to save a farmer time when having to fix something, is invaluable," says Pretorius.

Moving to the front of the stand, he shows us the new range of purpose-designed aftermarket hub units designed and developed by BI in consultation with KML for multi-row V-seeding coulters. "A 12-row seeding coulters has two cutting discs in a V to cut the furrow, a front depth wheel and a furrow closing wheel at the back – and each of these has a different bearing hub. That means there are 48 hubs on each 12-row planter," Pienaar explains.

BI has developed an aftermarket solution for these machines based on the new BAA003 bearing hub, which has a better sealing arrangement than any OEM or premium-brand equivalent. "Also, though, we have modularised this unit so that the same bearing can be used for all three applications. We have designed three different adapter shafts so that the same bearing can be used for all 48 of the seed coulters' planting wheels," Pienaar reveals, while showing how the shaft for the depth gauge wheel can be replaced by one for a closing wheel.

From a reliability perspective, he says that the bearing itself includes a triple-lip or tri-ply seal, which comes pre-sealed and pre-greased. "This is not simply an aftermarket part. It's a better and more cost-effective solution designed to suit our harsh conditions with sandy, abrasive soils," he says, adding that these units are easier to replace and much longer-lasting than the original OEM equivalents.

Also on display and for sale at NAMPO were BI's range of sprockets for agricul-



A working display of BI's extensive product range at the company's NAMPO stand. A VSD-driven motor is driving a bucket wheel elevator (right) using a misaligned PTO shaft and several of the company's gearboxes, couplings, drive chain and other components.



A new set of BI/Jonnesway hand tools, developed by farmers for farmers.

tural implements, standard V-pulleys with adaptor sleeve bosses and axle couplings. Gearboxes can be supplied for slashers and cutters, production equipment, and other agricultural implements. Oils, hydraulic seals, and hoses are also available, as well as power take-off (PTO) shafts and variable speed drives (VSDs) to raise the efficiency of electric motors – ideal for centre-point

irrigation systems, for example.

Adhesives, sealants, and surface treatment from Loctite were also represented, as were Bauer aluminium three-phase 380 V and 525 V motors, Citronol environment-friendly hand cleaners and degreasers, Makita cordless power tools, Rocol lubricants, and Dodge bearings, housing and shaft-mounted gearboxes. □



John Deere's 9570 RX quad track tractor features GPS-based driverless navigation via a StarFire receiver and AutoTrac.

Flue Gas Analyser

- Low maintenance • Laser technology
- No probes • No sampling system



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