

Two more years in Senegal for Lincoln Lubrication

Excellent service on the lubrication systems of mobile equipment on a gold mine in West Africa over the past two years has delivered increased uptime and substantial cost savings, earning SKF's Lincoln Lubrication South Africa's Africa Export team an extension of their service contract by another 24 months.

When a Senegalese gold mine started losing mobile equipment due to a lack of proper lubrication maintenance planning, with subsequent frequent costly downtime, it called on Lincoln Lubrication SA's Africa Export team for a solution. "In October 2018, the mine accepted our proposal for a 24-month service contract on the lubrication systems on all their mobile equipment," says Lincoln Lubrication SA's, export sales manager, Joseph Kumwimba.

Kumwimba, together with team member, Obakeng Malao, who is responsible for customer service, took complete control of the lubrication systems on all the mine's mobile equipment for a two-year period. "By maintaining and repairing lubrication systems, we reduced grease consumption, increased equipment uptime, avoided equipment failure, and

saved on maintenance man-hours, ultimately delivering tremendous cost savings and ensuring optimum protection of our customers' assets," notes Kumwimba. He adds that the customers' CAPEX was also reduced due to the repair of pumps and injectors for safe re-use.

The tremendous value adds that customers and end-users stand to gain makes implementation of a lubrication service contract a no brainer. The optimal functioning of lubrication systems reduces costly unplanned lubrication-related downtime, ensuring high availability and smooth operation of their mobile machines. So when the first lubrication service contract came to an end in October 2020, the mine, recognising the benefits, immediately extended the contract for a further 24 months.

"We are particularly proud of what we managed to achieve, especially taking into account that all countries were under strict lockdown

measures 16 months into the first service contract, which presented us with numerous challenges. The fact that we had a technician in Senegal for six months definitely worked in our favour."

In line with the new contract, the Lincoln Africa Export team will continue servicing the factory-fitted CentroMatic Lube systems on 52 machines including excavators, wheel loaders, crawl dozers, bulldozers, graders and mine trucks. The CentroMatic Lube system, complete with the South Africa manufactured AutoLube controller, includes SLV, SL-1, SLV-X, and SL-11 injectors with PowerMaster and FlowMaster grease pumps. "We provide some modification where necessary to fit the tough African conditions and, in some instances, we install new lubrication systems," notes Kumwimba, adding that the Lincoln Lubrication team also has additional capacity should the mine decide to add more machines for lube service.

"The fact that we have a permanent presence on site means that every time a mobile machine pulls into the service bay, we are on hand ready to conduct a complete check on the status of the lubrication systems." The full scope of work includes checks on pump operation and sufficient pressure build-up and the functioning of metering devices and SL-V Injectors.

"Following inspection and identification of requirements, we make recommendations on necessary repair and replacement work on each machine. Once we have completed the repairs, we make sure the machine is in 100% working order before completing a written report." To ensure prompt repairs, the team holds a predetermined level of stock consignment on site, set up at a low replenishment level. Also part of the service contract is on-the-job training, given to mine technicians.

Lincoln Lubrication South Africa established the Africa Export Lincoln team four years ago with the objective of becoming the leader in the lubrication industry in various markets throughout sub-Saharan Africa. "Our mandate is to increase revenue as well as to ensure smooth operation throughout sub-Saharan Africa's export industry," says Kumwimba.

He points out that the lubrication business requires a great deal of time and patience to develop and even more so in the African market. "Trust needs to be earned before the end-user can even consider looking at the solution proposition. The market requires perseverance, consistency, regular customer visits and mental toughness and, most importantly, a purpose-driven personality," he concludes.

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Factory-fitted CentroMatic Lube systems with the South Africa manufactured AutoLube controller and SLV, SL-1, SLV-X, and SL-11 injectors with PowerMaster and FlowMaster grease pumps are fitted to 52 of the mines machines.

SKF NDT solution increases equipment availability in Zambia



The SKF Zambia team conducts NDT on 90 machines on the copper mine every six months.

Non-destructive testing (NDT) works carried out by SKF Zambia on more than 90 mobile mining machines and equipment operating on one of the country's largest copper mines has delivered massive savings for the customer over a six month period.

The mine, which is located in Zambia's North-Western Province, is a key long-term customer of SKF Zambia. "We share a solid 15+ year relationship with our customer, supplying the mine with SKF bearings and seals as well as Lincoln Lubrication solutions over the years," confirms Key Accounts manager at SKF Zambia, Mel Patel.

Internal cracks on mobile machines are a chronic issue on the mine where heavy equipment operates round-the-clock. NDT works are thus fundamental to the mine's predictive maintenance strategy planning. In addition to averting unnecessary downtime, huge parts procurement costs can be avoided through better planning around stocking of larger parts with longer lead times.

The SKF Zambia's specialist team conducts NDT works on 90 machines on the copper mine every six months, completing two to five units per day. These include the mine's most critical machines such as Articulated Dump Trucks (ADTs), Mine Haul Trucks, drill rigs, rock breakers and excavators that operate 24/7 as well as equipment including excavator buckets and booms. Additional inspections are also carried out on other components on the mine as required by the end-user.

"Our NDT scope of work is comprehensive, comprising aspects such as inspection of welds, castings, forgings, components, plates and rolled product piping; coating inspection

covering all aspects of surface finishing; mining truck frame inspection; holiday testing, and Corrosion Under Insulation Detection using our Lixi Profiler," notes Patel.

SKF Zambia's NDT solution, which was rolled out in June 2020, includes both traditional as well as advanced techniques. Ultrasonic Testing, Magnetic Particle Penetrant Testing, Eddy Current Testing and painting and coating inspection are some of the traditional methods applied by the company.

Some results following testing work included the identification of frame cracks on various dump trucks and excavators. "We file a report for the necessary repairs and, following implementation, we conduct a second inspection to ensure that the equipment has been fully restored," says Patel.

"By pinpointing issues and enabling the necessary repairs to be done before catastrophic failures, we delivered tremendous cost and time savings benefits to our customer." In addition to keeping repair costs to a minimum, equipment availability is optimised while uptime and subsequently productivity is increased. These advantages present a solid argument for the vital role that NDT plays in predictive maintenance, which is fundamental to the future sustainability of a mine or plant.

Patel explains that SKF Zambia is adding further value

for this customer by placing a skilled team on the mine site. "Our team is on standby, ready to respond immediately to any requests from the mine's maintenance manager for necessary machine or equipment inspections.

"Forging long-term partnerships with customers and delivering turnkey solutions rather than just selling products adds much value to our overall strategic focus on Rotating Equipment Performance (REP). Our solid NDT offering has strengthened our customer's trust and presented several future opportunities for online monitoring of mobile machines on the copper mine," concludes Patel. □



Cracks detected by SKF Zambia's NDT team on large mine trucks are repaired to fully restore structural integrity.