



‘Agri Hub is the  
maintenance-  
free solution’



# No need for re-lubrication with Agri Hub

**The harvest season is over. The potato harvester has proven itself again. Initially it was still dry, but the season ended wet. Nevertheless, the potatoes went into storage in a good and clean condition. Before you drive the harvester into the winter storage, clean it thoroughly. Then you lubricate the bearings so that the machine is ready for the next season. If it's up to you, the harvester will operate on your farm for years to come.**

The service life of the bearings is largely in your own hands and extending the bearing life is easier than you might think. Plan lubrication, use the right type and amount of grease, prevent damage to the seals and mount the bearing with the right tools. But how do you make sure that the reliability and availability of your machinery is optimal? In other words, how do you plan major maintenance during the winter period and how do you ensure that you keep an eye on the condition of your bearings during the high season? There are several tools to quickly and accurately check the condition of bearings, from high-tech sensors to simple equipment that measures vibration and temperature. Think of digital thermometers or simple vibration meters that send the measurement data to an app on your phone. Condition monitoring is an important tool to better predict maintenance and thus keep your machine in operation for a longer period.

## Re-lubrication without downtime

Visual inspection and relubrication can be difficult with bearings that are hidden under or deep inside a machine. An automatic lubrication system offers a solution. The advantage of this is that the pump automatically supplies all bearings of the machine with the right amount of grease. In addition, lubrication takes no time: the system lubricates while you are squeezing, treshing or digging. This saves you a lot of valuable time.

Manufacturers of balers, combine harvesters and potato harvesters often already build such lubrication systems on the machine in the factory. But you can also build an automatic lubrication system on a machine afterwards. As long as the bearing has a grease nipple, you can in principle build a lubrication system on it. An electric or pneumatic pump pumps the grease from a reservoir via small hoses to the lubrication points. Practice shows that incorrect lubrication is still the main cause of bearing failure.

## Lubricated for life

For those applications where an automatic lubrication system may be less suitable, SKF has developed a groundbreaking, maintenance-free solution: the Agri Hub. This is an integrated bearing system, i.e. a bearing, housing and shaft in one. The housing has a high

quality seal that keeps dust, mud, moisture and sand out of the bearing and is resistant to many types of cleaning agents. For bearings in seed drills and disc harrows, among others, the housing is made of galvanized steel, a material that is resistant to water and fertilizer. For use on fertilizers SKF has developed an Agri Hub with a plastic housing. The plastic version can withstand less forces, but is more resistant to ammonia. But even more important is that this version only weighs a third of the steel version. With a fertilizer with 40 discs, you save so many kilos.

The bearing in the Agri Hub is already mounted on the shaft. Mount the output shaft of the Agri Hub to the arm of the harrow and screw the disc to the housing. Once mounted, you don't have to look at the Agri Hub anymore. The bearing is lubricated for life. When the Agri Hub is broken, you replace the complete Hub.

The Agri Hub offers great advantages, indicate different users. A farmer from Italy reports that its use saves him half an hour a day. "In addition, with my old harrow with 20 discs, about 20 kg of grease per year went through it. I don't need to buy that anymore and I don't pollute the soil with excess grease".

## Predictive maintenance helps reduce downtime

SKF is also working on other methods to prevent unplanned downtime. For example, SKF has been applying condition monitoring for decades, in which sensors measure the bearing temperature and vibration. This technique is already extensively used in shipping, the automotive sector and at windmills. Agricultural vehicles manufacturers are increasingly looking in conjunction with SKF to include condition monitoring as standard in their machines.

The ultimate goal is that you can see the condition of the bearings on the terminal in the cabin. If a bearing threatens to fail, you get a message and you can replace the bearings even before they break down. This prevents unplanned downtime. Especially on combine harvesters and shredders we see a lot of potential for this technology. By measuring you can detect problems in time and you won't come to a standstill in the middle of the field.

## Sensor checks bearing condition

SKF has sensors mounted on or in the bearing. The sensor measures the vibrations of the bearing. The indicator on top of the sensor, with the colors green, orange and red, indicates the state of the bearing. This sensor communicates with an app on your phone and immediately shows the results.