# Easy and safe relubrication of wind turbines – the new service cartridge from FUCHS LUBRICANTS GERMANY



## Relubrication – a major component of maintenance work

The maintenance of wind power plants represents a big challenge for service employees. Space is at a premium at lofty heights – in addition to which the maintenance work is hampered by difficult-to-access areas.

In particular the important lubrication of the individual applications and the refilling of lubrication systems can thus be very complicated. Apart from the high time expenditure there are often other adversities such as the ingress of air and dirt into central lubrication systems and applications as well as ecological aspects.

### High time expenditure

Manual relubrication always takes up a lot of time. In particular the refilling of lubrication systems is very complicated using conventional methods. Grease containers of central lubrication systems contain several kilograms of grease. Thus, several 400 g cartridges must gradually be conveyed to their destination by grease gun or the lubricant is filled manually from an open container into the central lubrication system.

### Ingress of air and contamination

Above all during the manual refilling of central lubrication systems from an open container air bubbles and contamination may enter, which can lead to malfunctions or damage to the respective application. Even when using grease guns, there is still a risk of air and dirt ingress due to the frequent changing of the cartridges.

### **Residual quantities**

Lubricant often remains in the container after refilling. Depending on the type of container this may be as much as 10% of the actual contents. Firstly, this is disadvantageous from an economical point of view and, secondly, high residual quantities make the recycling process of the emptied container more difficult.



## Easy and safe relubrication of wind turbines – the new service cartridge from FUCHS LUBRICANTS GERMANY

With the new service cartridge FUCHS LUBRICANTS GERMANY offers a solution that makes your maintenance work considerably easier, virtually eliminates the ingress of air and dirt and is also eco-friendly.

The new service cartridge has a filling volume of 4,000 ml and is simply screwed onto a mobile lubricating pump. A hose connects it with the lubricating point or a central lubrication system. The grease quantity is thus pumped directly to its destination. Since the service cartridges are filled without bubbles, the risk of air ingress is virtually excluded.

Whilst the contents of the cartridge are being pumped into the central lubrication system, your service employee can take care of other maintenance tasks. Due to the high volume of 4,000 ml, a cartridge change is often unnecessary and the risk of contamination is thus minimized. When using the corresponding case pumps, minimum switch-off via an integrated meter or a simple magnetic switch is possible.

Thanks to the special shape of the follower piston the cartridge can be almost completely emptied and is thus an extremely economical and eco-friendly solution for the relubrication of wind power plants.

#### Your benefits at a glance

- Bubble-free refilling of central lubrication systems
- Low contamination risk
- Easy and time-saving handling
- Can be emptied almost completely
- Eco-friendly disposal



Service cartridge in use (screwed onto mobile case pump)

For comparison: full cartridge (left) and the completely emptied cartridge after use (right)

# Our products in the new service cartridges

Product	Application	Properties
GLEITMO 585 K	Pitch and yaw bearings (gear ring and roller bearings)	<ul> <li>Temperature range: -45 to +130 °C</li> <li>NLGI grade 2</li> <li>Base oil viscosity (40 °C): 50 mm²/s</li> </ul>
GLEITMO 585 K PLUS	Pitch and yaw bearings (especially for central lubrication systems with progressive distributor)	<ul> <li>Temperature range: -45 to +130 °C</li> <li>NLGI grade 2</li> <li>Base oil viscosity (40 °C): 50 mm²/s</li> </ul>
STABYL LX 460 SYN	Universal use in wind power plants, in particular rotor bearings as well as pitch and yaw bearings	<ul> <li>Temperature range: -40 to +140 °C</li> <li>NLGI grade 1-2</li> <li>Base oil viscosity (40 °C): 460 mm²/s</li> </ul>
STABYL EOS E 2	Universal use in wind power plants, in particular for pitch, yaw and rotor bearings	<ul> <li>Temperature range: -40 to +130 °C</li> <li>NLGI grade 1-2</li> <li>Base oil viscosity (40 °C): 320 mm²/s</li> </ul>
URETHYN XHD 2	Long-term lubrication of generator bearings	<ul> <li>Temperature range: -40 to +180 °C (peak: 200 °C)</li> <li>NLGI grade 2</li> <li>Base oil viscosity (40 °C): 290 mm²/s</li> </ul>
CEPLATTYN BL WHITE	Gear tooth systems of azimut and pitch gears	<ul> <li>Temperature range: -50 to +160 °C (peak: 180 °C)</li> <li>NLGI grade 1-2</li> <li>Base oil viscosity (40 °C): 300 mm²/s</li> </ul>



### Innovative lubricants need Experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced FUCHS engineers will be glad to advise on products for the application in question and also on our full range of lubricants.



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