



Tailor Made High-Tech Lubricants
for Improved Safety and Reliability



# LUBCON® Train, Bail and Wheel Services



# Complete Range of Unique Lubricants and Expert Technical Support from One Source

In rail transportation, bogies and rails are the most critical parts for providing traction, durability, reliability and safety. These components are subject to extreme load conditions and are influenced by environmental pollutants, which have a water catalytic effect on service life reduction. The traction and energy consumption during acceleration and braking are absorbed by the material and superstructure of the tracks which are themselves strongly influenced by the geometry of the wheels and rails. The resulting vibrations and wear lead to high and disturbing noise generation.

Due to the flexing between the wheel flange and rail edge, which is caused by lateral forces on curved tracks, the vehicle is pushed to the outside producing slippage on the inside of the track. This slippage usually leads to a high frequency screeching noise which is particularly disturbing to local residents,

passengers and is an indicator of a severe wear process. Therefore a new generation of public transportation systems requires innovative lubricants which are biodegradable and compliant with strict safety and environmental regulations.

In close cooperation with vehicle and component manufacturers (OEM), vehicle and rail owners, operators and maintenance companies we have successfully developed lubricants which are resistant to water, oxidation and which exhibit excellent load and adhesion properties. The selection of the right lubricant in combination with the right application device, taking into consideration the various operating and environmental conditions, enables LUBCON lubricants to meet the severe requirements during the critical friction conditions between wheels and rails. Technical expertise, extensive knowledge and a high level of innovation in conjunction with superior lubricants are just a few reasons for the continuous success of the LUBCON network.

#### From Bow Collector to Break Leverage All from One Source

Numerous moving parts such as gears, bearings or guide lines in trains have to perform together in order to enable safe and punctual transportation over long and short distances. Since high demands have been set by each individual component, it is getting more difficult to find a lubricant supplier who can meet these high requirements in terms of safety and reliability, by using a combination of lubricants and lubrication systems to cover all applications. Therefore LUBCON carries the full range of tested and approved lubricants; from buffers, clutches, door opening systems to connection components we offer a well balanced package of high performance lubricants in addition to technical service and customer support.

### Reliability and Safety with High Performance Grease for Wheel Set Bearings

Wheel set bearings of trains are subject to various load conditions which can vary from static to high dynamic loads at low and high speed ranges. Besides dealing with harsh environmental conditions such as high and low temperatures, rain or dust, they also have to absorb extreme stress and vibrations resulting from the movements of the vehicle body, the bogie, the rails as well as the track. Just one bearing failure leads to unexpected breakdowns of the whole vehicle thus incurring repair costs, maintenance expenses, change of timetables and most important frustrated customers.

To prevent such unexpected breakdowns and to increase your cost savings we developed an optimum solution in lubrication technology. Our well known **Turmogrease Li 802 EP** for wheel set bearings provides excellent lubrication at low and high speeds and reduces friction and wear, thus contributing significantly to reduced running noise. For long-term application such as engine bearings we successfully introduced **Turmogrease L 802 EP plus** for best load carrying performance, high stability and outstanding protection against contamination and corrosion.

Biodegradable and nvironmental Friendly

### Keep it Fast and Quiet with the Latest Technology in Rail and Switch Lubrication

Regardless of whether you have to deal with public or private, short or long distance rail networks, sub-zero temperatures or a salt water environment, our high performance product range **Sintono® Terra** for the rail edge, wheel flange and rail head lubrication provides outstanding protection against corrosion at high loads. **Sintono® Terra** Series is specifically formulated to reduce friction and wear at the critical areas and to improve the performance of wheels and rails. Even under harsh environmental conditions such as heat, snow, ice, rain or dust, LUBCON synthetic lubricants show excellent resistance against water, oxidation and ageing. They maintain a stable lubricating film which adheres well on all surfaces and shows excellent pressure resistance.

These tested and approved lubricants, meet the criteria for good braking and traction capability and reduce squeeling noises significantly. Carefully composed friction modifiers support high coefficients of friction in a wide temperature range while protecting the load carrying surfaces from wear.

The fully biodegradable synthetic lubricants can be used during all seasonal environmental conditions.



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