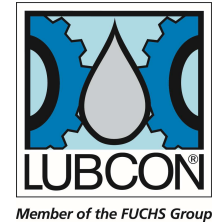


Lubrication of Rail and Infrastructure



Challenge:

1. Curve Squealing and Rail Head Wear

Curve squealing is a well-known issue in rail systems, caused by micro-slip between the wheel tread and the

rail during curved track segments. It results in:

- Loud noise emissions,
- Wheel flat spots and ripple formations on the rail,
- Accelerated bearing and wheelset wear,
- Increased maintenance cycles and costs.

Solution:

LUBCON SINTONO TERRA HLK - a biodegradable rail-head conditioner that reduces noise and wear by controlling the friction coefficient. Compatible with onboard and stationary application systems.

2. Wheel Flange Friction and Wear

Excessive friction between wheel flange and rail flank during cornering and switching operations

contributes to:

- Rapid component degradation,
- Energy loss and increased fuel consumption,
- Safety concerns due to potential flange climbing.

Solution:

LUBCON SINTONO TERRA SK-RE - adhesive lubricant with long-lasting performance that significantly reduces wear and is approved for use in all rail system types. Biodegradable and highly economical.

3. Wheelset Bearing Load and Corrosion

Wheel bearings in trains operate in demanding conditions:

- Extreme loads up to 40 tons,
- Operation up to 330 km/h,
- Moisture, condensation, and freeze-thaw cycles.

Solution:

LUBCON TURMOGREASE Li 802 EP - bearing grease designed for high-speed, high-load rail service. Resists water absorption, corrosion, and temperature fluctuations. Approved under EN 12081/82.



4. Smart Lubrication: Maintenance Consistency

Manual lubrication often results in:

- Under-lubrication of critical components,
- Time-consuming servicing,
- Unpredictable lubrication intervals.

This is why LUBCON offers lubrication technology in addition to lubricants for the railroad and rail sector. Three lubricators at a glance:

LUBCON DuoMax 160

The SixMax 130 External is a cost-effective, maintenance-free multi-point lubrication system for long-term use. With six outlets, it enables simultaneous lubrication of up to six points, reducing the number of devices needed. Adjustable for up to 60 months of operation, it requires no air or oil consumption, lowering total cost of ownership compared to oil-air systems. Its sealed metal housing ensures durability in dust, heat, and humidity. Quick to install, it provides automatic 24/7 lubrication with precise, on-demand supply.

LUBCON MicroMax 120

The MicroMax 120 is a compact, electro-mechanical lubricator designed for reliable, automatic 24/7 lubrication of hard-to-reach components like bearings, ball screws, and linear guides. With a robust, sealed metal housing and battery operation, it ensures precise, long-term dosing of oils and greases—maximizing equipment reliability and minimizing maintenance, even in extreme environments.

LUBCON SL 60

Portable, battery-powered lubricator for fast, precise application of oils and greases up to NLGI 0 on railway switches. Weighing 2.4 kg, it operates with an 18 V lithium-ion battery and delivers adjustable spray pressure up to 138 bar. Its 75 cm ergonomic nozzle allows clean, accurate lubrication without clogging, even in hard-to-reach areas. The device removes dirt while applying lubricant and is ideal for use with Terrasol SWA products in all maintenance environments.