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SLS Sersa Second Life System®

Cost-effective and efficient life extension
of rail infrastructure

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Member of the
RHOMBERG SERSA RAIL GROUP

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The centre piece of the SLS Sersa Second Life System®

Many years of experience has inspired the Sersa Group to continually improve and enhance the SLS Sersa Second Life System®.

The unique combination of the system components re-establishes the baseplate to sleeper interface thus restoring the functionality of the infrastructure to its original specification.

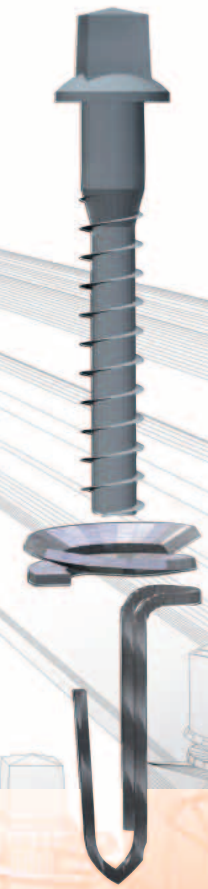
Cost-effective life extension rather than cost-intensive replacement

Tracks with high axle loads and high volumes of traffic are subjected to ever increasing vertical and horizontal forces. These forces can result in the deterioration of the Infrastructure components, especially in areas of curved track, and Switch and Crossing layouts.

Eventual component failure may include:

- Elongation of screw holes
- Indentation of the sleeper
- Baseplate shuffle

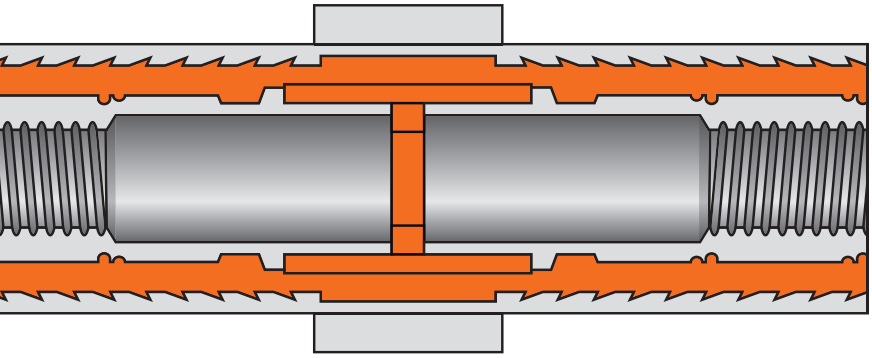
These conditions may cause:



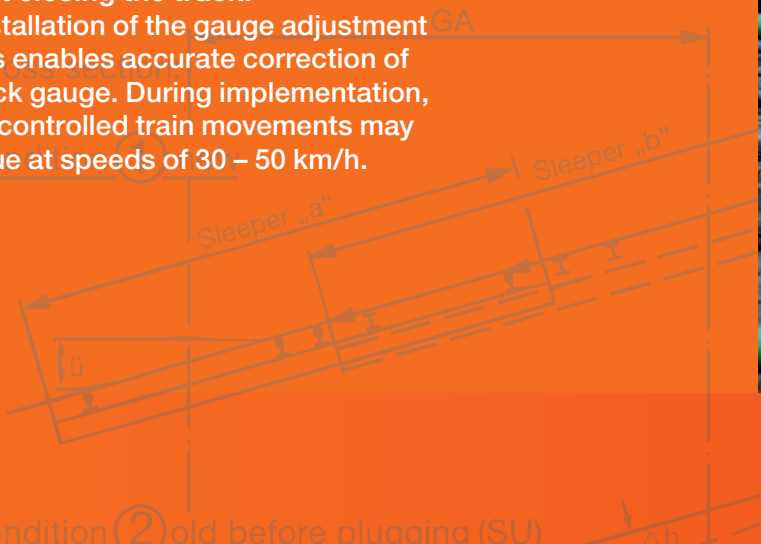
- Loss of horizontal alignment
- Loss of vertical alignment
- Loss of the required super-elevation
- Loss of gauge
- Track bounce resulting in damaged components
- Accelerated rail wear leading to RCF defects and premature replacement or repair
- Broken and defective rails
- Rolling contact fatigue rail defects

All of which lead to poor track quality and affect train performance due to component failure and TSR imposition.

When the SLS Sersa Second Life System® is employed as a preventative maintenance solution, component integrity is maintained reducing the risk of failures.



SLS Sersa Second Life System®
without closing the track:
The installation of the gauge adjustment tie bars enables accurate correction of the track gauge. During implementation, signal-controlled train movements may continue at speeds of 30 – 50 km/h.



The resin based solution for the refurbishment of the Switch and Crossing units

The SLS Sersa Second Life System® is suitable for all switch & crossing layouts and longitudinal bridges. Implementation of the SLS Sersa Second Life System® may be applied at any time during the infrastructure life cycle depending on the condition of the asset and operational requirements.

A detailed assessment of the asset requires a comprehensive survey to determine the following:

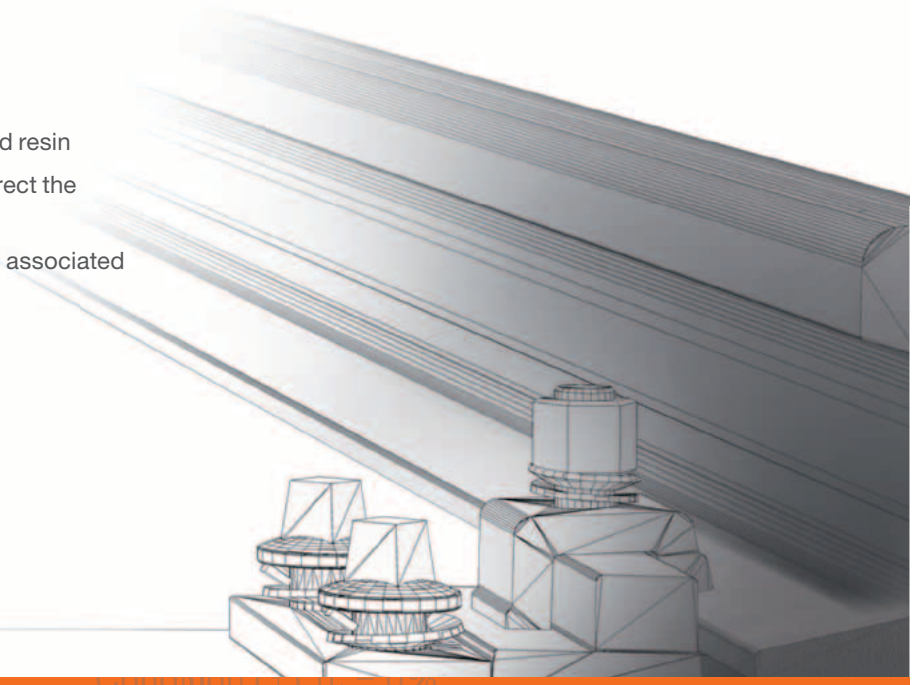
- General condition of the infrastructure
- Condition of the individual components
- Deviation of the vertical and horizontal alignment
- Deviation of the gauge
- Evaluation of the sleeper condition

There may be regional variations in the implementation of the procedure and the materials used, but they have no detrimental effect on the quality of the system.

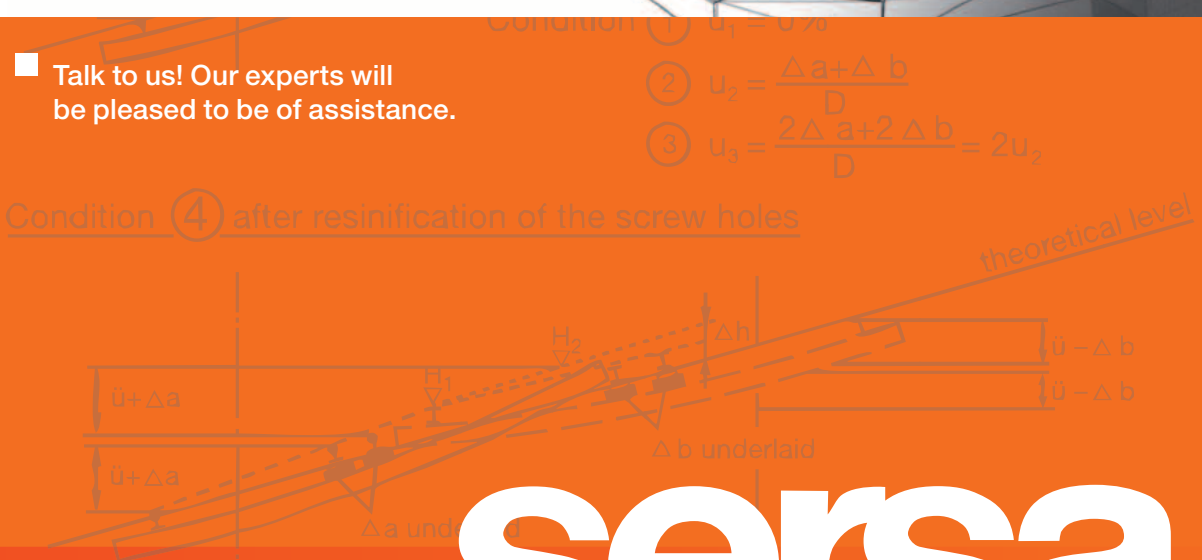
All preparatory works such as welding and/or component renewal must be carried out prior to the implementation of the SLS Sersa Second Life System®.

The process involves:

- Installation of the gauge adjustment tie bars
- Loosening of the datum rail
- Correction of the track gauge
- Re-drilling of the screw holes
- Insertion of expansion insert and resin
- Insertion of lupolen pads to correct the super-elevation
- Insertion of the new screws and associated components



Talk to us! Our experts will be pleased to be of assistance.



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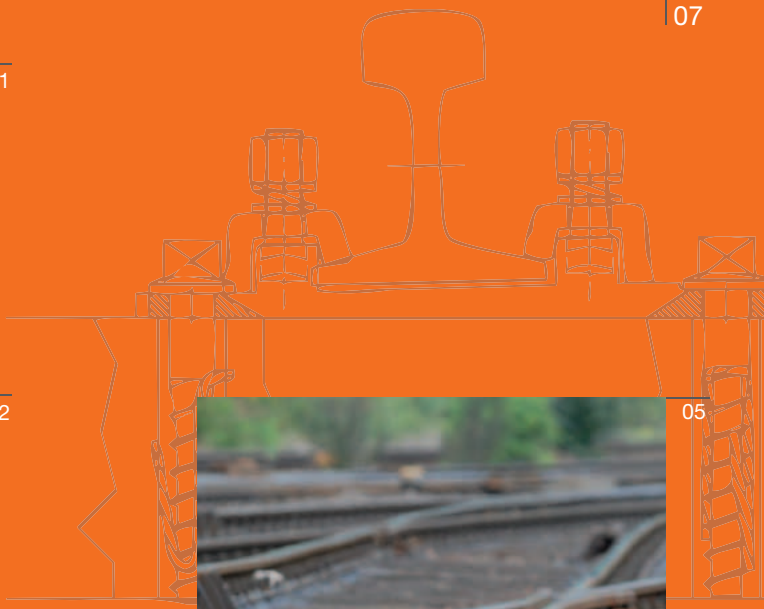
01

02

03

04



05

Just a few steps to achieve the desired result

Once the track gauge has been corrected and the bolt holes have been re drilled (01), the expansion inserts are located (02), resin is poured into the screw holes (03) and distributed evenly under the base plates. The nominal height is restored by inserting lupolen plates (04). Finally, the new screws are inserted (05).

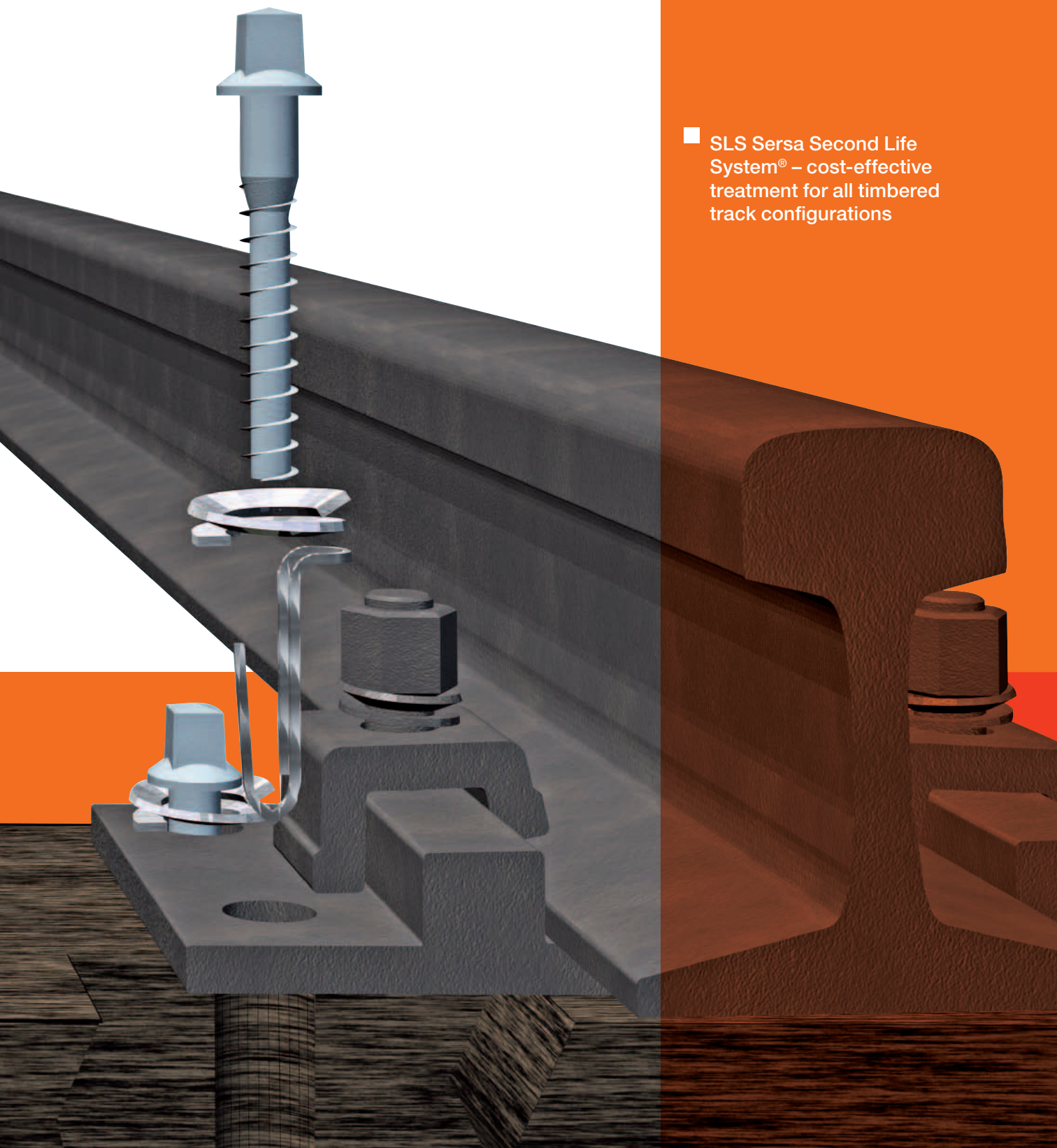
One procedure – many advantages

The SLS Sersa Second Life System® is characterised by the improvement of the following:

- Recovery of the screw hole integrity
- Recovery of the baseplate to sleeper interface
- Recovery of the gauge
- Correction of the super-elevation
- Correction of the horizontal and vertical alignment
- Returns the track to construction standards
- Service life of the infrastructure can be extended by 5 – 10 years
- Return of investment costs after only 2 – 3 years
- Reduction of ongoing maintenance costs
- Environmentally friendly

A result we're proud of:

Since the introduction of the SLS Sersa Second Life System® thousands of switch points, longitudinal bridge timbers and sleepers have been successfully treated throughout Switzerland, Germany and the UK.



- **SLS Sersa Second Life System® – cost-effective treatment for all timbered track configurations**

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