



# **Engineering Conformance Certificate**

This certificate is issued in accordance with RIS-1530-PLT Issue 6

NAME OF VEHICLE ACCEPTANCE BODY

**ACCREDITATION CODE** 

21

SNC-Lavalin Rail & Transit Verification Limited

Vehicle Class / Description 940/Liebherr/A900ZW612/9B

Vehicle Owner Story Plant Ltd

Issue Date 10 May 2021

Expiry Date 07 May 2028

Vehicle Number(s)

99709 940931-7

**First Of Class** 

99709 940931-7 on certificate 21/0399/21 against RIS-1530-PLT issue 6.

Authorised by: OFFICIAL STAMP

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IIN

Alex McCristal

SNC-Lavalin Rail & Transit Verification Limited

### Reason for issue and Scope of Work

Certification of upgraded Liebherr A900 ZW 612 Road Rail Vehicle with articulated boom.

Serial No. K017837. Story Fleet No. 1103-22.

Assessed for compliance with RIS-1530-PLT Issue 6.

On this certificate: Upgrade to RIS-1530-PLT Issue 6 and conversion from Low Ride to High Ride.

Expiry date conforms to the requirements of RIS-1530-PLT.

### Deviations associated with this certificate

None

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#### **Previous Certificate Number**

No previous Engineering Conformance Certificate against RIS-1530-PLT Issue 6.

Previous Engineering Acceptance Certificate: 21/0200/17.

#### **Maintenance Plan Details**

Story Road Rail - Liebherr A900zw (High Rail conversion) Maintenance Plan; STORY/MP/LOW-HIGH; Issue 2; Date: May 2021.

Allan J Hargreaves - GKD proportional Spaceguard operation and maintenance; AJH 121; Issue 5; Date: 15/05/2019.

#### **Limitations of Use**

- 1. The RRV shall only operate inside possessions.
- 2. When travelling, the vehicle is within the Plant gauge as defined in RIS-1530-PLT.
- 3. When working the vehicle may be out of the Plant gauge.
  - Minimum underside height of tail swing above rail is 1480mm.
  - Maximum lateral tail swing gauge is 1360mm from the running edge of the rail. (650mm horizontal gauge exceedance).
  - A site survey shall be undertaken to assess potential damage to infrastructure equipment prior to use.
- 4. The vehicle shall NOT on/off track, travel or work on live conductor-rail lines.
- 5. The vehicle shall NOT travel on track with:
  - Cants greater than 200mm; gradients greater than 1:25 and/or curves less than 80m.
- 6. The vehicle shall NOT work on track with:
  - Cants greater than 150mm; gradients greater than 1:25 and/or curves less than 80m.
- When reversing, the vehicle shall only proceed at walking speed with the driver utilising the CCTV and/or ground staff, until the superstructure/boom can be slewed to face the direction of travel.
- For access/egress, the vehicle shall only operate with the door to the cab adjacent to a cess or a line closed to all train movements, or the safe system of work takes account of adequate clearances to the adjacent line or lines.
- The vehicle shall NOT on/off track if the immediately adjacent line(s) are open to traffic, unless a site specific, safe system of work (SSoW) is used, taking account of the requirements of the Liebherr Operations Manual and the applicable module of the Network Rail Infrastructure Plant Manual NR/L2/RMVP/0200.
  - The vehicle shall NOT be on/off tracked on cants greater than 150mm and/or gradients greater than 1:25.
- 10. The vehicle shall only be permitted to travel and work ALO with the GKD SpaceGuard RCI system active, the Slew Limit and/or Virtual Wall correctly set and the system functionality has been proven correct prior to vehicle use.

ALO working shall only be in accordance with the approved safe system of work (SSoW) for the possession, taking account of the extra gauge exceedance caused by attachments.

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11. The vehicle shall NOT on/off-track, travel or work under live OLE, unless the GKD SpaceGuard RCI system is active, the Height Limit correctly set and the system functionality been proven correct prior to vehicle use.

Under live OLE, working shall only be in accordance with the safe system of work for the possession, determined and approved by taking guidance from the requirements of GE/RT8024, and accounting for:

- A maximum SpaceGuard default height of the boom above the rail of 3.500m.
- A minimum OLE wire height of 4.165m.
- The earth bonds on the RRV shall have been examined for security and presence, prior to use.
- Attachments and their load shall not exceed the height of the top of the boom.
- 12. Except for the cab, when the vehicle is under live OLE access is NOT permitted onto any surfaces higher than 1.4m above rail.
- 13. It is permitted to tow and/or propel rail trailers with compatible coupling and brake systems:-
  - > Air brakes park brake release is 4bar, and for service brake is 0-8bar.
  - Trailers with park and service brakes:
  - Maximum weight is 56tonnes/3 trailers. Maximum weight is 72 tonnes/4 trailers, on level rail.

NOTE:- The towed and/or propelled trailer consist shall not be of mixed brake types. The maximum towed and/or propelled weight may have to be reduced where the railhead conditions for adhesion and/or the ruling gradient may affect the safe traction performance of the RRV.

### **Supplementary Information**

- 1. The RRV is a Liebherr OEM rail-conversion of road excavator with articulated boom (boom 2.08m, artic 3.40m and 1.7m dipper).
- 2. Manufacturer Serial No. K017837. Story Fleet No. 1103-22.
- 3. The vehicle is approved to carry 2-persons seated in the driver's cab.
- 4. It operates on rail in high-mode only.
- 5. CCTV camera fitted to the side and rear.
- 6. Gross vehicle weight is 23.62tonnes.
- 7. Fitted with rail wheel braking system.
- 8. Maximum speeds travelling on rail not to exceed:-
  - 15mph plain line;
  - 5mph switches and crossings;
  - 1mph raised check/guard rails;
  - 10mph towing/propelling;
  - 5mph emergency recovery.
- 9. Auxiliary lifting eye maximum of 7.5tonnes SWL shall NOT be exceeded.
- 10. The RCI shall be switched on at all times, unless in digging mode.
- 11. Where an attachment is known to have a significant adverse affect on the RRV stability, the RCI shall always be in 'Lift Mode' when using the attachment.
- 12. RCI information:
  - Fitted with a GKD Spaceguard Rated Capacity Indicator (RCI);
  - Model: GKD-3RCI Touch Screen;
  - RCI Software: V9.58BSP;
  - Serial Number: 01973T;
  - Duty chart reference: Serial No K017837. 3.00m Fixed Length Jib. All charts Dated 04-May-2021.
  - The RRV has Normal and Tandem Lifting Modes.

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13. GKD SpaceGuard RCI Information:
The vehicle is fitted with an electronic slew and height limiting system through the GKD SpaceGuard RCI which has been approved as High Performance, against RIS-1530-PLT Issue 6.

Authorised by:		
Alex McCristal	Ala M'Citus	

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