



On-Track Plant Engineering Conformance Certificate

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

NAME OF VEHICLE ACCEPTANCE BODY

SNC-Lavalin Rail & Transit Verification Limited

ACCREDITATION CODE

21

Vehicle Class / Description

970/Liebherr/A900ZW612/9C

Vehicle Owner

Story Contracting Ltd

Issue Date

22 February, 2017

Expiry Date

17 February, 2024

Vehicle Number(s)

99709_970065-7


First Of Class

99709 970065-7 on Engineering Conformance Certificate 21/0161/17 against RIS-1530-PLT Issue 6.

Authorised by:

Bryan Lowe

SNC-Lavalin Rail & Transit Verification Limited



OFFICIAL STAMP



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Reason for issue and Scope of Work

Certification of upgraded Road Rail Vehicle.
Serial No. 61210209, Story Contracting Fleet No. 0396.

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

On this Certificate: Clarification of Limitation 6. No engineering change.

Additionally, the Limitations of Use enable the RRV to achieve gauge compliance for operation on either W6a non conductor-rail lines or W6a isolated conductor-rail lines. The road wheel configuration to achieve compliance with either required operation option will be controlled by and be the responsibility of Story Contracting Ltd, as the RRV is prepared for its specified use.

There is no engineering change associated with either operation option that has any effect on the existing calibration/duty charts of the Rated Capacity Indicator, the lifting capacity and stability of the RRV.

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

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Deviations associated with this certificate

None

Previous Certificate Number

21/0161/17.

Maintenance Plan Details

Story Operation and Maintenance Addendum - Road Rail - Liebherr A900zw Ref: Story1, Issue 1.
Dated Feb 2017.

Limitations of Use

The Limitations of Use enable the RRV to achieve gauge compliance for operation on either W6a non conductor-rail lines or W6a isolated conductor-rail lines. The road wheel configuration to achieve compliance with either required operation option shall be controlled by and will be the responsibility of Story Contracting Ltd, as the RRV is prepared for its specified use and prior to it being permitted to go onto Network Rail Infrastructure.

NOTE - Limitations 1 to 14 are common to either operation option, with additional Limitations A.15 to 18 or B.19 to 22, as applicable.

1. The vehicle shall only be used in a possession.
 2. For on/off tracking, a site-specific work plan shall be used, in compliance with the Story Manual STY/PRO/48 and the applicable module of the Network Rail Plant Manual NR/PLANT/0200. Maximum on/off tracking cants NOT greater than 150mm and/or gradient NOT greater than 1:25.
 3. For recovery refer to the Story Contracting Manual.
 4. The vehicle shall NOT on/off track or work, if adjacent lines are open to traffic.
 5. The vehicle shall NOT on/off-track, travel and work on live conductor-rail lines.
 6. The vehicle shall NOT on/off-track, travel or work under live OLE, except as Limitation 7.
 7. The vehicle may on/off-track on an approved RRAP or travel under live OLE, when used in conjunction with a safe system of work determined and authorised by taking guidance from the requirements of GE/RT8024, and provided the boom/dipper is in the travel position. Minimum OLE wire height of 4.165m.
 8. Except for the cab, when the RRV is under live OLE access is NOT permitted onto any surfaces greater than 1.4m above rail.
 9. For access/egress, the RRV shall only operate with the cab door adjacent to a cess or a line closed to all train movements, or the safe system of work takes account of adequate clearances to adjacent lines.
 10. Travelling Mode: The RRV shall NOT travel on track that exceeds cant 200mm and/or gradient 1:25.
 11. Working Mode: The RRV shall NOT work on track that exceeds cant 150mm and/or gradient 1:25.
 12. The vehicle will not activate train operated points.
 13. When reversing, the RRV shall only proceed at walking speed with the driver utilising the ground staff, until the superstructure/boom can be slewed to face the direction of travel.
 14. The vehicle is permitted to tow and/or propel rail trailers with compatible coupling and air brake systems. Maximum towed/propelled weight is 120tonnes / 6 trailers.
OR
It is permitted to tow trailers from the front or rear.
In the following consist, 5+1, 4+2 and 3+3, maximum payload of 140tonnes shall not be exceeded.
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 vehicle.
Maximum air supply pressure for park brake release is 8.0bar, and for service brake is 0-8.0bar.
- A. OPERATION ON W6A NON CONDUCTOR-RAIL LINES > the RRV shall be fitted with twin-wheel foam-filled road tyres.

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15. When in travelling mode, the RRV is within W6a gauge and the exceedance permitted in non-3rd rail areas for road wheels as RIS-1530-PLT.
Mirrors must be folded in.
 16. When in working mode, the vehicle may be out of W6a gauge.
Minimum underside height of tail swing above rail level is 1274mm.
Maximum lateral tail swing 1283mm from the running edge of the rail, (i.e. gauge exceedance 590mm).
 17. Gauge exceedance - The twin road wheel tyres encroach into the area below rail head level by 70mm; and extend 520mm outwards and 60mm inwards from the running edge of each rail.
 18. Prior to the RRV use, a site survey shall assess the potential for damage to the infrastructure equipment, and identify restrictions which take into account guardrails, checkrails and the road tyres.
- B. OPERATION ON W6A ISOLATED CONDUCTOR-RAIL LINES > the RRV shall be fitted with single-wheel foam-filled road tyres and a Story Contracting compensating weight attached to each road wheel centre.
19. When in travelling mode, the RRV is within W6a gauge and the exceedance permitted in 3rd rail areas for road wheels as RIS-1530-PLT.
Mirrors must be folded in.
 20. When in working mode, the vehicle may be out of W6a gauge.
Minimum underside height of tail swing above rail level is 1274mm.
Maximum lateral tail swing 1283mm from the running edge of the rail, (i.e. gauge exceedance 590mm).
 21. Gauge exceedance - The single road wheel tyres encroach into the area below rail head level by 20mm; and extend 200mm outwards and 100mm inwards from the running edge of each rail.
 22. Prior to the RRV use, a site survey shall assess the potential for damage to the infrastructure equipment, and identify restrictions which take into account guardrails, checkrails and the road tyres.

Supplementary Information

1. The RRV is a Liebherr OEM rail-conversion of road excavator with articulated off-set boom. (boom 2.80m, artic 3.50m and 2.2m dipper). Serial No. 61210209, Story Contracting Fleet No. 0396.
2. The vehicle operates on rail in low-mode only. It has no load carrying area.
3. Permitted number of personnel to be carried: 2 in cab.
4. Gross vehicle weight is 23 tonnes.
5. Maximum speeds travelling on rail not to exceed:
 - 13mph (20km/h) Plain line;
 - 5mph (8km/h) Switches & Crossings and Raised Check Rails;
 - 10mph (16km/h) Towing/Propelling;
 - 3mph (5km/h) Emergency recovery.
6. The vehicle is fitted with a GKD Rated Capacity Indicator (3RCI) which shall be operational during all lifting duties and when used with attachments which may affect the RRV stability in working mode. The RCI does not have a tandem lifting mode.
Lifting duties shall only be undertaken through the identified dipper lifting point.
When fitted with single foam-filled road tyres, the compensating weight attached to each road wheel centre has no effect on the existing calibration/duty charts of the Rated Capacity Indicator, the lifting capacity and stability of the RRV.
7. RCI Information:
 - Model - GKD 3RCI;
 - RCI software version - 9.24;
 - Duty Charts - Liebherr A900ZW 61210209, dated 06/02/2017.
8. The vehicle may work with a range of attachments through the dipper link pins or quick hitch.
9. Where an attachment is known to have a significant adverse affect on vehicle stability, the RCI shall always be in 'Lift Mode' when using the attachment.
10. The interrogation and down-loading of the data recorder, (part of the RCI), shall be managed by the RRV owning/operating company, in accordance with their maintenance policy and the RCI Operator's Manual.

Authorised by:

Bryan Lowe

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