NetworkRail

Interfleet

Member of the SNC-LAVALIN Group

CERTIFICATE OF ENGINEERING ACCEPTANCE

This certificate is issued in accordance with RIS-1530-PLT Issue 5

NAME OF VEHICLE ACCEPTANCE BODY

Interfleet Technology Ltd

ACCREDITATION CODE

IF

Vehicle Class / Description	**Road Rail Vehicle Liebherr A900C ZW/1384/Type 9B**
Vehicle Owner	**Story Contracting Ltd**
Issue Date	**17 October, 2014**
Expiry Date	**26 September, 2021**

Vehicle Number(s)

99709_940763-4

First Of Class

99709 940723-8, Serial No. 051093. Certificated against RIS-1530-PLT, Issue 2.

Authorised by:

Bryan Lowe
Interfleet Technology Ltd

OFFICIAL STAMP

Interfleet

Reason for issue and Scope of Work

Certification of Liebherr Road Rail Vehicle.
Serial No. WLHZ1384VZK064721. Story Contracting Fleet No. SR1004.

Originally assessed for compliance with RIS-1530-PLT, Issue 2.

On this certificate:
GKD SpaceGuard RCI upgrade only.

The vehicle is fitted with an electronic slew and height limiting system through the GKD SpaceGuard RCI which has been approved by Network Rail Technical Services, document reference MLD/L065: Approval of MLD029: King / GKD SpaceGuard Virtual Wall Liebherr A900 ZW/1384, against RIS-1530-PLT Issue 5 and Network Rail remit MLD/R003 for slew and height limiting devices.

There are no other engineering changes to the RRV.

Expiry date conforms to the requirements of RIS-1530-PLT, Issue 5.

Customer Copy

Certificate Number: IF/0563/14

Deviations associated with this certificate

Network Rail Derogation, Tracker Number 13776 applies to this Certificate, to permit assessment against RIS-1530-PLT Issue 2.

Previous Certificate Number

IF/0507/14 : 99709 940763-4.

Maintenance Plan Details

Liebherr A900C ZW-1384 with Liebherr DRWB and GKD 3RCI Maintenance Plan; Rev A; Issue 3; Date April 2014.

Maintenance Instruction Story Contracting Road Rail Vehicles, Attachments and Trailers, STY/RAL/MP/14, Revision B, Issue 2, 21st March 2014.

Limitations of Use

A CONFIGURATION

1. Vehicle is Liebherr OEM road-rail excavator with 3.60m two-piece off-set boom and 1.85m dipper.
2. It has a control for air park/service brake, see D13.
3. Permitted number of personnel to be carried: 2 in cab.
4. It operates on-rail in high-mode only. It has no load carrying area.
5. RRV is fitted with a GKD 3RCI Rated Capacity Indicator (RCI) which shall be operational during all lifting duties and when used with attachments which may affect vehicle stability, see E.
   > Serial number 706T.
   > RCI software version V8.39.
   > Duty Charts - Liebherr A900C ZW-1384-R8101.
   > Liebherr Machine software version is V4.7.

   Load lifting points: dipper pin 10 tonnes, auxiliary 7.5 tonnes shall NOT be exceeded.
6. 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.
7. It may work with attachments through the dipper link pins or quick hitch, see E.
8. It is fitted with a boom height limiting device to permit use under live OLE, See D5.
9. A split-screen CCTV camera is fitted on this vehicle.
10. Fitted with (OEM) rail wheel braking system.
11. Gross vehicle weight is 25.8 tonnes.

B ON & OFF TRACKING AND EMERGENCY RECOVERY

1. For on/off tracking, a site-specific work plan for one of the following conditions shall be used. The work plan shall be in compliance with the Liebherr Operator's Manual A900C ZW-1384 and the applicable module of Network Rail Infastructure Plant Manual NR/PLANT/0200.
   > Maximum track cant 100mm and/or gradient not steeper than 1:25, on an approved RRAP.
   OR
   > Maximum track cant 150mm and gradient not steeper than 1:100 on an approved RRAP as a permanent level crossing. To ensure stability, the RRV boom shall NOT be raised above its travel position. The counter weight shall NOT be permitted on low side of cant. The RCI shall be switched ON at all times.
2. For recovery refer to the Liebherr Manual. Maximum speed 5mph (8km/h) to avoid damage to the RRV.

C GAUGE

1. Travelling mode: the RRV is within the W6a gauge and exception as RIS-1530-PLT.
2. Working mode: the RRV counterweight, boom, dipper and attachments can be out of the W6a gauge, dependent on the RCI settings in use. Minimum underside height of tail swing above rail is 1426mm. Maximum lateral tail swing is 1442mm from the running edge of the rail (750mm horizontal gauge exceedance).

D LIMITATIONS OF USE

1. It shall only operate inside possessions.
2. Vehicle shall not on/off track if adjacent lines are open to traffic.
3. The vehicle shall only be permitted to 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.
4. It shall NOT on/off-track, travel or work on live conductor-rail lines.
5. 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 authorised by taking guidance from the requirements of GE/RT8024, and account taken of :-
   > 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.
6. Except for the cab, when the RRV is under live OLE, access is NOT permitted onto any surface higher than 1.4m above rail.
7. For access/egress, the RRV 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 adjacent lines.
8. Permitted speed - Maximum - 20 mph (32km/h);
   Switches, Crossings and Raised checkrails - 5mph (8km/h);
   Towing/Propelling - 10mph (16km/h).
9. When reversing, the RRV 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.
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. Limitation to ensure stability:
    - Controlled by RCI which must be active when RRV is in use - See Duty Charts and E.
    - Permitted to lift and carry through 360 degrees operation.
    - Movement of boom towards backward stability limit shall only be at moderate/low speed.
13. It is permitted to tow and/or propel rail trailers with compatible coupling and brake systems:-

> Air brakes - supply pressure for park brake release is 9.8bar, and for service brake is 0-8bar.
- Trailers with park and service brakes. Maximum weight is 56 tonnes/3 trailers.
- Chieftain trailers only, with park and service brake. Maximum weight is 96 tonnes/4 trailers, on level rail.

OR

> Hydraulic brakes - supply pressure for park brake release is 100bar, and for service brake is 0-80bar.
-Trailers with park and service brakes. Maximum weight is 56 tonnes/3 trailers.

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.

E ATTACHMENTS

The RRV may work with attachments through the auxiliary lifting point, dipper lifting point or quick hitch.
Any such attachment and its use shall only be with the approval of the infrastructure controller.
Attachment use shall also comply with the following and as detailed in the Method Statement for the possession:

- Where specified, and including all lifting accessories, the attachment shall have a current certificate of approval, test and/or thorough examination.
- The attachment shall only be used in accordance with the manufacturer's operating instructions, and the documented safe system of work.

Authorised by:

Bryan Lowe .....

- Use of the attachment shall not involve exceeding the vehicle's rated capacity for lifting.
- The RCI shall be switched ON (Lifting mode) for all lifting duties, and when using an attachment that may have a significant adverse effect on stability of the RRV.
- The RCI may only be switched to Non-RCI mode (Non-Lifting Mode) for digging, ballast profiling, vegetation control, non-lifting or similar work processes. Before work commences, the attachment and its contents (e.g. bucket full of ballast, if applicable) shall be moved through the intended range of movements under control of the RCI, to confirm that the planned work is within the vehicle's lifting capacity and stability.
- Except for the quick hitch, attachments should not be connected to the vehicle during on or off tracking, unless safe to do so.

Supplementary Information

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 by Network Rail Technical Services, document reference MLD/L065: Approval of MLD029: King / GKD SpaceGuard Virtual Wall Liebherr A900 ZW/1384, against RIS-1530-PLT Issue 5 and Network Rail remit MLD/R003 for slew and height limiting devices.