CERTIFICATE OF ENGINEERING ACCEPTANCE

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

NAME OF VEHICLE ACCEPTANCE BODY

SNC-Lavalin Rail & Transit Limited

ACCREDITATION CODE

IF

Vehicle Class / Description	**919/Dematec/Sennebogen 643 Crane/9A**
Vehicle Owner	**Lundy Projects Ltd**
Issue Date	**3 June, 2016**
Expiry Date	**24 August, 2022**

Vehicle Number(s)

99709_919085-9

First Of Class

99709 919085-9 on certificate IF/0265/15 under RIS-1530-PLT Issue 5.

Authorised by:

Bryan Lowe .....

SNC-Lavalin Rail & Transit Limited

OFFICIAL STAMP

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Reason for issue and Scope of Work

Certification of a Dematec/Sennebogen 643 Road Rail Crane.
Dematec/Sennebogen Serial No. 643.0.306/14023. Lundy Fleet No. LPL034.

Assessed for compliance with RIS-1530-PLT Issue 5.

On this certificate:- Changes to Limitations of Use to permit restricted ALO working, as approved by Network Rail Certificate of Acceptance PA05/06207, Issue 2, 22/02/2016. No engineering change.

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

Deviations associated with this certificate

None

Previous Certificate Number

IF/0473/15.

Customer Copy **Certificate Number:** IF/0371/16

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Maintenance Plan Details

Dematec Maintenance Manual Rail Crane 643.0.306/14023, Rev 1, 18/05/2015.

Limitations of Use

1. The vehicle shall only operate inside possessions.
2. In travelling mode, the vehicle is within W6a gauge profile as defined in RIS-1530-PLT.
3. In working mode, the vehicle can move outside the W6a gauge profile. A site survey shall be undertaken to assess potential damage to the infrastructure prior to operation.
   Minimum underside height of the tail swing above rail is 1517mm.
   Maximum tail swing gauge exceedance is 1785mm (i.e. 2478mm from the running edge of the rail).
4. The vehicle may ONLY work with Any Line(s) Open to traffic (ALO), if the safe system of work (SSoW) has taken account of the W6a profile gauge exceedance towards any adjacent open line.
   The SSoW shall include allowance for vehicle tail swing and the maximum lateral deployment of the boom and its load, to ensure a distance in excess of 3m is maintained at all times.
   The vehicle, including any gauge exceedance is NOT permitted to work ALO within 3m or less from the nearest open line.
   Also see Supplementary Information 7 on this certificate.
5. The vehicle has a working "lift and carry mode", whilst on rail. Duty charts 05/2015.
6. The vehicle has a working "static lift mode", whilst on rail and with the crane outriggers activated. When deployed, the outrigger pad bases shall not impinge on the sleepers.
7. The vehicle shall NOT on/off track or travel on live conductor-rail lines.
8. The vehicle shall not travel on track with :
   > cants greater than 200mm; gradients greater than 1:25, and/or curves less than 80m.
9. The vehicle shall not work on track with :
   > cants greater than 150mm; gradients greater than 1:56, and/or curves less than 80m.
10. When reversing, the vehicle shall only proceed at walking speed with the driver utilising the CCTV and/or ground staff, until the upper structure can be slewed to face the direction of travel.
11. 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 adjacent lines.
12. Setting up and packing away - the upper-structure / stabilisers shall be stowed correctly before travel.
13. The vehicle shall NOT on/off track if adjacent lines are open to traffic.
14. For on/off tracking, a Safe System of Work (SSoW) shall be used taking account of the requirements in Network Rail Infrastructure Plant Manual NR/PLANT/0200.
    The vehicle shall not be on/off tracked on cants greater than 100mm and/or gradients greater than 1:25.
15. The vehicle shall not on/off track or travel under live OLE, except :-
    > It 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 approved by guidance from the requirements of GE/RT8024; and provided the upper-structure is in the travel position; also taking into account of the height of the top of the crane 3.965m above rail and subject to a minimum OLE wire height of 4.565m.
    > The earth bonds on the vehicle shall have been examined for security and presence, prior to use.
    > Other than for the cab, access is NOT permitted onto any surfaces higher than 1.4m above rail when the vehicle is under live OLE.
16. It is permitted to tow and/or propel trailers with compatible coupling and air park/service brake systems.
    Air supply pressure for park brake release is 8bar, and for service brake is 0-8bar.
    Maximum weight is 40tonnes / 3 trailers fitted with air reservoirs.

NOTE: The maximum towed and/or propelled weight may have to be reduced where the railhead conditions for adhesion and/or running gradient may affect the safe traction performance of the vehicle.

Supplementary Information

1. The vehicle is a Dematec rail conversion of a Sennebogen Crane, with hydrostatic direct rail-wheel braking. Manufacturer's Serial No. 643.0.306/14023, Lundy Fleet No. LPL034.
2. It shall only operate on rail in high-mode and is approved to carry 1 person seated in the drivers cab.

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3. CCTV camera fitted to the rear and right hand side.
4. Gross vehicle weight: 34.8tonnes.
5. It has a lift and carry mode that operates within +/-20 degrees of the front centre travel position.
6. Maximum speeds travelling on rail not to exceed:-
   - 15mph plain line;
   - 5mph switches and crossings;
   - 3mph raised check/guard rails;
   - 10mph towing/propelling;
   - 5mph emergency recovery.
7. The vehicle is fitted with a lateral (slew) movement limiting device of "low performance", as assessed against the applicable standard and acceptance criteria.
   The system has NOT been approved by Network Rail against MLD/052 as "reliable" as it is NOT fitted with a High Performance Movement Limiter.
   The vehicle, including its maximum W6a profile gauge exceedance, is NOT permitted to operate under ALO configuration within 3m of the nearest line open to traffic.
   (References > Network Rail "Certificate of Acceptance PA05/06207, issue 2, 22/02/2016" and " Approval of Movement Limiting Devices of Unknown Reliability, MLD/L052 04/07/2014".)

Note that Interfleet Technology Ltd is now trading as SNC-Lavalin Rail & Transit Ltd. This certificate has been issued on the basis of the Engineering Acceptance of Rail Vehicles Licence Agreement issued to Interfleet Technology Ltd (certificate numbers 13/017/001 and 13/017/002) on 1 February 2013, and subsequently extended until the termination of the CCB/VAB licensing process. The certification management system is unaffected by the change of name in respect of compliance with PS305/04.

Authorised by:

Bryan Lowe .....

Customer Copy **Certificate Number:** IF/0371/16