



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 977/Aquarius/Canter/9C
Vehicle Owner Aquarius Railroad Technologies Ltd
Issue Date 04 March 2021
Expiry Date 06 January 2028

Vehicle Number(s)
99709 977053-6

First Of Class
99709 977053-6 on certificate 21/0003/21 against RIS-1530-PLT, Issue 6.

Authorised by:

Alex McCristal
SNC-Lavalin Rail & Transit Verification Limited

OFFICIAL STAMP



SNC-LAVALIN



Reason for issue and Scope of Work

Certification of new Mitsubishi Canter Lorry RRV with Aquarius Rail Gear.
Chassis number: TYAFGB71ERDZ01621. Registration number: SJ19 KGK.
Assessed for compliance with RIS-1530-PLT, Issue 6.
Expiry date conforms to the requirements of RIS-1530-PLT.

Deviations associated with this certificate

None.

Applicant Copy
SN0201195

Certificate Number: 21/0003/21



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Previous Certificate Number

No previous Engineering Conformance Certificate.

Maintenance Plan Details

Aquarius R2R Canter HPV Maintenance Manual; Issue 1; Date: 24/02/2021.

Aquarius R2R Canter Operator's Handbook; Issue 1; Date: 24/02/2021.

Limitations of Use

1. The vehicle shall only operate inside possessions.
2. In travelling and working mode, the RRV has a gauge exceedance to the Plant gauge as defined by RIS-1530-PLT.
The road wheel tyres encroach into the area below rail head level by 14mm and extends 218mm outwards and 44mm inwards from the running edge of each rail
The rail gear exceeds Plant gauge into the four foot by up to 20mm.
Note - Prior to use, a site survey to assess the potential for damage to the infrastructure equipment and identify restrictions which take into account guardrails, checkrails, the road tyres.
3. Additional gauge restrictions may be necessary to account for cab doors when open.
4. The vehicle is not permitted to on/off track, travel or work on live conductor rail lines.
5. The vehicle shall not on/off track or work if adjacent lines are open to traffic.
6. The vehicle will not activate train operated points.
7. Vehicle shall not travel or work on track with:
- cants greater than 200mm; gradients greater than 1:25 and/or curve less than 80m.
8. When operating in reverse, before moving, the driver shall ensure that he has adequate visibility of the track to the rear (including utilising the CCTV), otherwise the reverse movements shall be controlled by ground staff.
9. The vehicle may only operate with the opening door adjacent to a cess or a line closed to all train movements or the safe system of work must take account of adequate safe clearances to adjacent lines. Vehicle door to adjacent line to be disabled (with ALO lock cover) and second person used to unlock the door when required.
10. The vehicle shall NOT on/off track on track with cants greater than 150mm and/or gradients greater than 1:25.
11. For on/off tracking, a site specific work plan shall be used taking account of the requirements in Network Rail Standard NR/L2/RMVP/0200.
12. The vehicle is suitable for use under live OLE (on/off track and travel) when used in conjunction with a safe system of work determined and authorised by taking guidance from the requirements of GE/RT8024; and account taken of:-
- The earth bonds on the RRV shall have been examined for security and presence, prior to use.
- Except for the cab, access is prohibited onto any surfaces higher than 1.4m above rail level.

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13. The vehicle is permitted to tow or propel:

- One Aquarius Road to Rail Trailer (R2RT) towed from rear (3,300kg).
- Three Aquarius Ultra-Light Trailer (ULT) towed from rear (3,000kg combined).
- Two Aquarius Load Tray Extension (LTE) – one front and one rear (1,100kg combined).

Note- The maximum towed and/or propelled weight may have to be reduced where the railhead conditions for adhesion and/or ruling gradient may affect the safe traction performance of the RRV.

Supplementary Information

1. Vehicle is an Aquarius Mitsubishi Canter Lorry RRV with Aquarius Rail Gear.
2. Chassis number: TYAFGB71ERDZ01621. Registration number: SJ19 KGK.
3. Vehicle is fitted with a trailer service brake control, working pressure 0-5.5 bar (maximum pressure 10 bar).
4. Vehicle operates in low ride only.
5. Tare weight - 4,480kg. Gross vehicle weight on rail - 8,250kg.
6. Maximum payload of 3,770kg shall not be exceeded and shall be uniformly distributed permitting up to 7 persons in the cab (80kg/person) and/or equipment in the rear.
7. Maximum speeds (travel and working) on rail not to exceed:
 - 20mph plain line;
 - 5mph switches and crossings;
 - 10mph reversing only when driver has unrestricted view to the rear of the vehicle, otherwise 3mph;
 - 1mph raised check rails;
 - 5mph emergency recovery.

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