



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	
Vehicle Class / Description	917/SRS/Volvo FM330 (KRB25) with Crane/Titan/9A		
Vehicle Owner	Keltbray Rail Plant		
Issue Date	25 October 2022		
Expiry Date	24 September 2029		
<u>Vehicle Number(s)</u> 99709 917109-9			
First Of Class			
99709 917109-9 on certificate 21/0431/22 against RIS-1530-PLT Issue 6.			
Authorised by: David Wass SNC-Lavalin Rail & Transit Ver	I Wall rification Limited S	OFFICIAL STAMP	
Reason for issue and Scope of Work Vehicle chassis number: YV2X9J0DXFA772270. Vehicle registration No: DK15 HTP. SRS Number: P15452- 1504. Originally assessed for compliance with RIS-1530-PLT Issue 6. On this certificate: Issue of remaining seven-year period (no engineering change). Expiry date conforms to the requirements of RIS-1530-PLT.			
Deviations associated with th	is certificate		
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Previous Certificate Number

21/0431/22.

Maintenance Plan Details

KR-KRPL-MAN-002 Keltbray Rail Plant Instruction Handbook for KRB-25 P15452. Issue 1. Dated 25/09/2022. KR-KRPL-MAN-003 Vehicle Maintenance Plan for SRS KRB25 Road-Rail Vehicle. Issue 1. Dated 25/09/2022 Palfinger Original Operating Manual Hydraulic Crane PKR290 (HPLS) (S407-RW-A). Edition 05/2019. Palfinger Spare Parts Catalogue Workman Basket BB033. Edition 12/2012. Palfinger Technical Specification BB033 (BB033). Edition 06/2017.

Limitations of Use

- 1. Vehicle is NOT permitted to travel or work outside a possession.
- 2. Travelling mode: Vehicle is within W6a gauge including exceedances permitted by RIS-1530-PLT.
- 3. The transportation of trailers on the loading deck of this Road Rail Vehicle, when on-rail, is NOT permitted.
- 4. The Crane must NOT be worked under live overhead line equipment.
- 5. Loading deck side boards and cab rear view mirrors can foul gauge dependent upon position. Mirrors MUST be folded in to a safe position for travelling or working on rail.
- 6. All working equipment and loading deck side boards MUST be stowed and secured in their transit position when on / off tracking and when operating the vehicle in travel mode on rail.
- 7. Vehicle is not permitted to be placed on or off track except at permanent crossings or specified track access points, see Limitations 8 and 10.
- 8. Vehicle not to be on and off tracked under live OLE with a contact wire height of less than 4.165m.
- 9. It may on/off track at a level crossing or travel under live OLE when used in conjunction with a documented safe system of work determined and authorised in accordance with the requirements of GE/RT8024, with stabilizers, work equipment and the Crane and Palfinger MEWP basket attachment (if fitted) fully stowed and locked in the transit position.
- 10. The vehicle shall only be on/off tracked at an approved on/off tracking point (RRAP) (unless the OTP has approval from Network Rail for on/off tracking at other locations) in accordance with the requirements of NR/LR/RMVP/0200 and appropriate module(s) and any successor standards.
- 11. When RRV is under live OLE, except for access to the cab operator and passenger seats, access onto any other part of the vehicle higher than 1.4m above rail level is strictly prohibited.
- 12. It shall NOT on/off track, travel or work on live conductor rail lines (3rd or 4th rail).
- 13. The vehicle is permitted to travel (and /or work) in isolated conductor rail areas.
- 14. This vehicle may be used with adjacent lines open to traffic, ONLY if a safe system of work to be adopted has taken account of gauge exceedance of any adjacent line open to traffic.
- 15. The machine is fitted with a High Performance lateral movement limiting device. The machine may operate under ALO configuration where a "reliable" or "high performance" lateral MLD is required, subject to Limitations 16 & 17.
- 16. Prior to use of the crane in a configuration which requires a High Performance lateral movement limiting device, the key switch shall be used to prevent slew from either or both sides, dependant on which adjacent lines are open to traffic, and the key shall be removed.

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- 17. It is possible to alter the distance to the adjacent line and the curve radius in the Movement Limiting Device settings. The value for distance to adjacent line and curve radius shall be set to the lowest possible value at all times.
- 18. The machine is fitted with a height limiting device. This has NOT been approved as a High Performance height limiting device. The machine shall NOT be used in configurations where a high performance height limiting device is required.
- 19. Access is required to either side of the vehicle when preparing for work and packing away. Adjacent lines shall be under the control of the engineering supervisor responsible for controlling movements of the vehicle.
- 20. Reverse movements in travelling mode MUST be controlled either by ground staff (max speed 3mph) or using CCTV (maximum speed 10mph).
- 21. It shall only be used in accordance with the documented, approved Method Statement and Safe System of Work for the possession which MUST include a documented and approved risk assessment for operator safe working position(s) (see Limitations 22, 23 & 24).
- 22. The Crane is operated in working mode, using the wire-less Remote Control system only (refer to Palfinger Document S407-RW-A). The Crane Operator must control the Crane in accordance with the Method Statement for the possession and in conjunction with an approved and documented safe system of work for the possession, and be provided with appropriate protection and a safe operating position. The Crane Remote Control Unit is used to control;
 - Crane functions.
 - Support leg functions.
 - Engine start, Engine stop, Horn, Overriding of overload cut off system when inner boom is fully extended, Deadmans push button and Crane-0-stabilizer mode.
- 23. When the RRV is working, attachments and crane / MEWP stabilizers may be out of gauge. Stabilizer legs have a spread of 5.9m (see Limitations 14, 19, 20 & 25).
- 24. The Crane shall only be used with stabilizers deployed when in Working Mode.
 When undertaking lifting duties which require the vehicle to be stationary and the stabilizer legs to be deployed; the leg base shall NOT be placed on rails or sleeper ends. The Crane shall only be used in accordance with the documented and approved Method Statement and Safe System of Work for the possession.
- 25. The Crane can infringe W6a gauge throughout its working envelope as follows;
 - Maximum Crane lateral movement 12.4m.
 - Maximum lateral movement of Crane in working speed 2.8m.
 - Maximum Crane lateral movement restricted side 1.35m.
 - Maximum vertical height from top of rail to top of the Crane is 16.0m.
 - Maximum height of Crane above rail level restricted side 16.0m.
- 26. When working on the maximum working cant of 180mm (with 50mm track twist), the Maximum Crane lateral movement is 5.4m.
- 27. When working with the Palfinger MEWP basket attachment it shall only be used in accordance with the SSoW and the Palfinger User Manuals. It shall have a current certificate of thorough examination.
- 28. When the MEWP is operating in working mode the vehicle stabilizers shall be deployed, the stabilizer leg base's shall NOT be placed on rails or sleeper ends.
 - The MEWP basket payload of 350kgs shall NOT be exceeded.
 - The MEWP shall NOT be used for any other lifting or towing/pulling duties.
- 29. In working mode the MWEP can exceed W6a gauge.
- 30. Vehicle is permitted to only tow or propel 2 x SRS FTR13000 trailers on rail.
- 31. All brake connections between the vehicle and trailers MUST be fitted and the trailer MUST be fitted with automatic breakaway brakes and marker/tail lights.
- 32. It is NOT permitted to tow non service braked trailers.
- 33. Maximum towed load and number of towed trailers shall not exceed the values given in the Vehicle Data section of this certificate.

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- 34. The towed and/or propelled trailer consist shall not be of a mixed brake type.
- 35. The maximum towed and/or propelled weight shall be reduced where the railhead conditions for adhesion and/or the ruling gradient may affect the safe traction performance of the RRV.
- 36. For Rail Gear recovery, refer to document SRS KRB25 Road Rail Vehicle P15452ND. For Operation and Maintenance suite of documents; KR-KRPL-MAN-002, KR-KRPL-MAN-003.
- 37. The vehicle is allowed to tow a vehicle of the same type in an EMERGENCY ONLY, using the standard rigid tow bar under the following conditions;
 - Maximum speed when towing not to exceed 5 mph.
 - The vehicle being towed shall have the driver in the cab at all times.
 - The CCTV system on the towing vehicle must be operational at all times.
 - The driver of the towing vehicle must check the CCTV screen at periods of no more than 30 second
 - intervals to verify the towed vehicle has not suffered a breakaway.
- 38. Vehicle shall be used as defined in the following table:

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Maximum speed on plain line;	20mph
Maximum speed over switches & crossings & check rails;	5mph
Maximum working speed;	3mph
Maximum speed when towing or propelling;	5mph
Maximum cant on which vehicle can be on/off tracked;	150mm
Maximum gradient on which vehicle can be on/off tracked;	1:25
Maximum track cants (working mode)	180mm
Maximum track cant (travelling mode)	180mm
Maximum gradient (working mode)	1 in 25
Maximum gradient (travelling)	1 in 25

Supplementary Information

- The vehicle is a conversion of a Volvo Lorry with rail gear for travel on-rail within possessions. SRS/Volvo FM330 (KRB25) Road Rail Vehicle with Palfinger PKR290C Crane with hydraulic extensions and has a fixed mounted 5m loading deck and Palfinger MEWP Basket Attachment. NOTE: The transportation of 2x SRSFTR13000 trailers on this Road Rail Vehicle loading deck, when on-rail, is NOT permitted.
- 2. It is fitted with 2-wheel single axle at the front and a 4-wheel bogie at the rear. Hydrostatic drive is through rail wheels, independent of the road wheels. On-rail, it operates in high-ride mode only.
- 3. Vehicle registration no. DK15 HTP.
- 4. Vehicle chassis number: YV2X9J0DXFA772270.
- 5. SRS Nos. P15452-1504: FM330 (KRB25) Road Rail Vehicle with Palfinger PKR290C Crane.
- 6. The vehicle is accepted against the requirements of RIS-1530-PLT, Issue 6. The approved configuration is with road wheels raised clear of the rail with traction drive and braking being achieved via the rail wheels.
- 7. The vehicle is approved to carry 2 persons (including driver) seated in the driver's cab.
- 8. Palfinger PKR290C Crane: Maximum lifting capacities:-
 - @ 4.6m 5.590kg, lifting moment 252.3kNm.
 @ 6.0m 4.150kg (25.7mt).
 @ 7.9m 3.050kg.
 @ 10.1m 2.360kg.
 - @ 12.2m 1.930kg.

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- 9. The vehicle is fitted with a Remote Control Unit, connected to the vehicle by an umbilical cord, for driving the vehicle with Crane stowed and locked in the transport position, forward or reverse maximum speed 3mph, This mode is for setting the crane RCI operational parameters only to ensure the maximum lifting capacities cannot be exceeded (see SRS document P15452-Statement Palfinger Remote Control). In this mode, the vehicle and remote control are NOT approved for undertaking any load lifting capabilities. > When Crane is unlocked, deployed and at maximum reach out of transport position, but with load restrictions (see Supplementary Information 11), controlled by the Crane RCI maximum speed 3mph. In this mode, the Remote Control Unit has the following functions only;
 - Drive forward and in reverse on track with crane deployed.
 - To sound warning horn.
 - Emergency stop function.
- 10. Reference Palfinger Railway drawing EB-12570;
 - Crane at 90° position radius@ 2.8m, no load on hook.
 - Crane over front of RRV radius @ 2.5m, no load on hook.
 - Crane over rear of RRV radius @ 4.1m, no load on hook.
- 11. Vehicle data:

Volliolo data.	
Gross Vehicle Weight	26tonne
Maximum No. Trailers	2
Maximum towed load	26tonne
Gauge	W6a
Maximum hydraulic park brake pressure	35bar
Hydraulic Service Brake Pressure	140bar
Maximum air park brake pressure	8.5bar
Air Service Brake Pressure	1.2bar

Authorised by:

David Wass

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